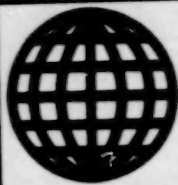


JPRS-UEA-88-016  
12 MAY 1988



**FOREIGN  
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# ***JPRS Report***

# **Soviet Union**

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***Economic Affairs***

# Soviet Union Economic Affairs

JPRS-UEA-88-016

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12 MAY 1988

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## ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

### Gosplan Journal Criticizes Five-Year Plan Results To Date

18200087a Moscow *PLANOVOYE KHOZYAYSTVO in Russian* No 2 Feb 88 pp 3-13

[Editorial, under rubric "Restructuring: Experience and Problems": "Results of the First Two Years of the Five-Year Plan"]

[Text] Approximately three years have passed since the April 1985 Plenum of the CPSU Central Committee, which set down new approaches in foreign and domestic policy and a course aimed at accelerating the country's socioeconomic development. During that time, on the basis of a thorough study of the content of the tasks confronting us and an analysis of the experience in socialist building, the party developed the concept of restructuring, which concept was extended by the program of the renovation of all aspects in the life of Soviet society. That concept has been developed in the documents of the party's 27th Congress (the new edition of the CPSU Program, and of the Basic Directions in the Economic and Social Development of the USSR in 1986-1990 and for the Period Until the Year 2000), the resolutions of the January and June 1987 Plenums of the party's Central Committee, and the materials devoted to the celebration of the 70th anniversary of the Great October Socialist Revolution.

Today, at the beginning of the third year of the five-year plan, it makes sense to carry out a special examination of the development of the economy during the two-year period that has elapsed, both in order to evaluate what was done and in order to provide a more concrete description of the tasks in the second stage of the restructuring. This is the stage of the practical implementation of the long-term strategy that has been worked out by the party, the principal links of which are the carrying out of the major reform of the administration of the economy and the further democratization of our society. At the present time, preparation is underway everywhere for the 19th All-Union CPSU Conference, which will take place in the middle of the year. This necessitates even more the analysis of what has been done, the results of the work that has been performed, and the pluses and minuses of that work.

#### Toward the New Quality of Economic Growth

The situation that developed in the national economy in the early 1980's was thoroughly analyzed in the documents of the party's 27th Congress and the subsequent Plenums of the CPSU Central Committee, and that situation was described as being pre-crisis.

In the second half of the 11th Five-Year Plan, thanks to the steps taken by the party to reinforce discipline and introduce proper order, the situation in the national

economy partially improved. The production growth rates and the plan fulfillment rose somewhat, a definite shift in the direction of the qualitative indicators was noted, and more attention began to be devoted to supplying the public's demands and to reinforcing the economic levers of administration. However, no major changes occurred. The way out of what is essentially a critical situation was set down by the April 1985 Plenum of the CPSU Central Committee.

The development of the chief directions in the Soviet economy during the period of time that elapsed after the party's 27th Congress proceeded in conformity with the goals specified by that congress. At the same time, as was noted in the party documents, it did not prove to be possible to resolve completely all the tasks that had been posed for that period. In addition to the positive tendencies, one continues to see the retention of difficulties in many sectors of the national economy, and a definite lagging behind has occurred.

The strategy of accelerating the socioeconomic development cannot be reduced simply to raising the rates of economic growth. The essence of acceleration lies in its new quality: the taking of all steps to intensify production on the basis of scientific-technical progress, the restructuring of the economy, and the application of effective forms of the administration, organization, and encouragement of labor. The approach to summing up the results of the period that is being considered should be taken, in our opinion, from the positions of what has been guaranteed by the new quality of economic growth. It is important, in particular, to ascertain the extent of fulfillment of the first-priority task that was posed by the congress — "the taking of decisive steps to break the unfavorable tendencies in the development of the economy, to provide it with the proper dynamism, and to open up vast scope for the initiative and creativity of the masses and to truly revolutionary reforms."

In 1986-1987 the process that had occurred over the period of recent five-year plans — the slowing down of the production growth rates — was basically overcome, and a definite increase of those rates was noted in the most important branches of the national economy. In addition a process that had been observed during the 1980's — the lowering of the absolute increases in the production of output — was eliminated (see Table 1).

Table 1

#### Basic Indicators of Development of Production (Increase in %)

	1986	1987	1985	Average During the Year in 11th Five-Year Plan
Industrial output	4.9	3.8	3.9	3.7
Agricultural output	5.1	0.2	-	1.1



**Basic Indicators of Development of Production (Increase in %)**

	1986	1987	1985	Average During the Year in 11th Five- Year Plan
State capital investments	8.9	5.2	2.7	3.5
Activation of fixed assets	6.2	5.5	0.9	
Hauling of freight by all types of transportation including:	2.1	0.7	1.0	1.4
-rail transportation	3.2	-0.2	1.0	1.2

In 1986 industrial output increased by 4.9 percent, as compared with a plan of 4.3 percent. During 1987 the increase in industrial production came to 3.8 percent, which corresponds to the assignment for the yearly plan. On the average, during the two years the increase is equal to 4.4 percent — an increase by a factor of more than 1.2 as compared with the 11th Five-Year Plan.

Work improved in a number of the leading branches of industry which, over a period of several years, had been restraining the development of the national economy. At the end of the past five-year plan, the branches that were particularly lagging behind were such branches in the fuel and energy complex as the petroleum and coal branches, as well as ferrous metallurgy. Currently those branches are operating in a more stable manner, and are fulfilling their planned assignments more confidently. If one evaluates the operation of these base branches of heavy industry on the basis of the overall production growth rates, they emerged from the breakthrough by the present time.

Starting in the middle of the past five-year plan, the petroleum industry has consistently failed to fulfill the plan, and in 1984-1985 the production of petroleum even dropped. Nevertheless in 1986 its volume (including gas condensate) increased by 20 million tons. Coal production increased during the year by 25 million tons, which is 2.5 times more than its increase during the previous five years. The fuel branches also surpassed the planned assignments in the year that has ended. More than 7 million tons of petroleum (including gas condensate), 15 billion cubic meters of gas, and 16 million tons of coal were produced in excess of plan. Moreover, at the beginning of the year the fuel and energy complex was developing more rapidly than industry as a whole, and to a large extent that contributed to the buildup of the rates of production of output by the latter in the second and third quarters. The situation in ferrous metallurgy has improved. For a product that is such a final one for the branch as finished rolled ferrous metals, the increase in production in 1986 came to 4 million tons, which is

almost equal to its increase during the entire 11th Five-Year Plan. In 1987 the production of finished rolled metal increased by an additional 2 million tons.

At the same time the development of industry has not yet acquired the necessary stability. This is expressed first of all in the delayed reinforcement of contract discipline. The pledges for shipments of output in 1985 were fulfilled by 98 percent; in 1986, by 98.6 percent; and in 1987, by 98.3 percent. Twenty-three percent of the associations and enterprises failed to cope with them. The greatest lagging behind because of nonfulfillment of assignments pertaining to the overall volume of production and the basic products list was incurred by the machine-building complex (3.7 billion rubles); the chemical and timber complex (2 billion rubles); and USSR Minlegprom [Ministry of Light Industry] (more than one billion rubles). These complexes account for more than half the overall indebtedness with regard to shipments.

One must note the fact that the contracts are also not being observed by the branches that have been fulfilling the assignments pertaining to the overall volume of sales of output. Thus, in the fuel and energy complex, the share of the enterprises that failed to guarantee the contract pledges in 1987 was 31 percent; in the metallurgical complex, 34 percent; and in the chemical and timber complex, 47 percent. This attests to the fact that the gross-oriented, "cost is no object" approach to the fulfillment of the planned assignments by the associations and enterprises is being overcome slowly. Many of them provide the plan-stipulated volume of sales at the expense of output that has not been ordered by customers, or at the expense of the low technical level and quality. Despite the increase in the demands for contract discipline (since last year the fulfillment of contracts has been the basic indicator for evaluating the activity of enterprises), the assignments for the basic products list that has been approved in the state plan continue to be fulfilled unsatisfactorily.

At the beginning of the current five-year plan, and especially in 1987, one observed in industry the lagging behind of the processing branches, primarily of machine-building and light industry, which during the winter period even had a drop in the achieved production level. They also proved during the subsequent months (see Table 2) to be unable to eliminate the lagging behind or to achieve the annual production growth rates that had been stipulated by the plan. Thus, the average production increase in 1986 and the first nine months of 1987 in machine-building (5.3 percent) and light industry (1.4 percent) proved to be less than in 1985 and the average per year during the 11th Five-Year Plan. Moreover, the restructuring of industry has been lagging behind in such very important areas as technical progress and the satisfying of the public's demands.

Table 2

Production Growth Rates in Industry, By Branch Complexes (In %)

Complex	1986	Jan-Mar 87	Jan-Jun 87	Jan-Sep 87	Jan-Dec 87	1985	Average per year in 11th Five-Year Plan
Fuel and energy	5.7	3.0	3.3	3.0	3.2	1.8	2.1
Metallurgical	4.0	1.1	1.6	1.7	1.9	2.8	2.1
Machine-building	7.3	1.3	2.9	3.3	4.6	7.1	6.2
Chemical and timber	5.7	4.3	2.8	3.0	3.2	-	4.2
Processing industry of APK [agroindustrial complex]	5.0	3.6	3.6	3.1	3.5	1.7	3.4
Building-materials	5.0	2.3	2.3	2.7	3.9	3.5	3.0
Light industry	2.0	-	0.1	0.7	1.4	2.8	1.6

On the whole during 1986 and 1987, an increase in industrial production that corresponded to the assignments in the five-year plan was provided. However, the situation with the output structure has been developing less favorably. The correlations between the production of producer goods and consumer goods that were established by the five-year plan are not being maintained. For example, in 1986 the output of industry in Group B increased less slowly than in the branches in Group A, although the plan stipulated the outstripping growth of consumer goods. Nor did it prove possible to provide it in 1987. The percentage of the processing branches increased to a lesser extent than had been planned. In 1986 one percent of the increase in production in the extractive industry corresponded to 1.4 percent of the increase in output of the processing branches, whereas during the past five-year plan the average was 2.4 percent.

There has been a noticeable acceleration in the development of agriculture. The rates for increase in its production increased by a factor of 2.5 as compared with the past five-year plan. In 1986 the highest increase in agricultural production in the past three years (5.1 percent) was achieved. The amount of grain harvested was 210 million tons, and the same harvest was produced in 1987. There was an increase in the production of sugar beets, sunflowers, and other crops. Larger quantities of fodders were also laid in. But in vegetable husbandry, because of the poor harvest, there was a reduction in the amount of potatoes and vegetables produced. The production of output in agriculture during the past two years surpassed, on the basis of the average yearly computation, the level of the 11th Five-Year Plan by 9 percent, including 17 percent for grain crops. In animal husbandry the increase in output and sales has been under way for the fourth year in a row and is entirely based on increasing the productivity of the livestock.

Nevertheless, despite in the shift that has been observed, the country's needs for agricultural products are not yet being completely provided, and their production has been lagging substantially behind the assignments of the Food Program.

There has been a considerable increase in the growth rates of capital construction, which, throughout the two previous five-year plans, developed more slowly than the national economy as a whole. The average yearly increase in state capital investments in 1986-1987 came to 7.2 percent, which is 2.5 times more than in the 11th Five-Year Plan. There was also an increase in the growth rates for activation of fixed assets. This corresponds to the line of the 12th Five-Year Plan that is aimed at the acceleration of the technical re-equipping of the national economy and at increasing in the national income the share of the accumulation fund. This strengthens the material prerequisites for the subsequent increase in the production development rates and the remodeling of the material-technical base of the national economy.

It is important to emphasize that a factor that has become a priority trend in capital investments in conformity with the tasks of the structural policy in the 12th Five-Year Plan is the technical re-equipping and remodeling of the existing enterprises. The investments for these purposes in 1986 increased by 17 percent and during the first nine months of last year by 8 percent, which respectively surpassed by a factor of 2.1 and 1.4 the overall increase in state capital investments. Moreover, in January-September 1987 more than half the total capital investments for technical re-equipping and remodeling was made up of the funds provided by enterprises and organizations.

According to preliminary computations, during the first two years of the five-year plan the volume of capital investments in the national economy that was stipulated by the plan will be surpassed. The results are developing less favorably for the activation of fixed assets and production capacities, that is, the final result of construction. The assignments for these indicators in 1986 were fulfilled at approximately the same level as in the 11th Five-Year Plan. A serious lag in practically all the most important branch complexes was also observed last year.

In transportation the volume of hauls that dropped during previous years increased. In 1986 the hauls of freight by all types of transportation increased by 679

million tons, or 1.5 times more than the average for the 11th Five-Year Plan. At such time, the railroads hauled 127 million more tons of freight, and motor transport, 472 million more tons, which surpasses the average yearly indicators for the past five-year plan, respectively, by 2.8 times and by 37 percent. But the necessary stability of the functioning of transportation has not yet been provided: in the winter of 1987, the railroad again had interruptions in their operation and had a reduced shipment volume. The number of shipments stipulated by the plan was not achieved by the beginning of the fourth quarter. Out of 32 railroads, 21 failed to cope with the assignments for shipments of freight. The indicators for the use of rolling stock worsened.

The changeover to the new quality of economic growth manifests itself most graphically in the accelerated increase in the effectiveness of social production. This process is confirmed by the dynamic nature of most of its indicators, including the chief indicator — labor productivity (see Table 3). In industry the increase in labor productivity in 1986-1987 accelerated, as compared with the previous five-year plan, by a factor of 1.4; in the social sector of agriculture, 3.1; in construction, 1.8; and in railroad transportation (where, thanks to the conversion of a number of railroads to the conditions of complete cost accounting and self-financing, the five-year assignment was overfulfilled in two years), 4.5.

Table 3

Labor Productivity Growth Rates (In %)

	1986	1987	1985	Average per year in the 11th Five- Year Plan
Industry	4.6	4.1	3.4	3.1
Agriculture	6.9	2.5	2.5	1.5
Construction	4.3	5.0	2.3	2.6
Railroad transportation	7.6	6.8	3.2	1.6
Productivity of social labor	3.8	2.4	3.2	3.1

There was an increase in the importance of this source of development for the economy. Industry is currently functioning under stabilization and with even a slight decrease in the number of persons employed. Starting with the second year of the five-year plan, the increase in labor productivity has begun to be provided practically completely by the increase in the overall volume of industrial production and the national income. In 1986, thanks to the increase in productivity in the national economy, the labor of 3.8 million persons was economized. That was achieved on the basis of the reduction in the application of manual labor (which made it possible to free approximately one million persons), the reduction of work-time losses by an average of 20

percent, and the expansion of the practice of combining occupations and job assignments (this reduced the additional need for manpower by more than 600,000 persons).

The relationship between the increase in productivity and the payment of labor is becoming normalized. The situation that had been occurring since the end of the 1970's — the outstripping increase in wages — has been eliminated. In 1986 labor productivity increased more rapidly than wages not only in industry, but also in construction and agriculture. The increase in wages per percentage of increase in labor productivity constituted in industry 0.53, as compared with 0.82 in the past five-year plan; in the social sector of agriculture 0.70, as compared with 1.81; in construction 0.82, as compared with 1.26; and in railroad transportation 0.58, as compared with 1.53.

There was somewhat of an improvement in the dynamics of the indicator of return on investment. Its reduction in 1986 as compared with the 11th Five-Year Plan was slowed down in the national economy as a whole by a factor of more than 2; in industry, 4; and in construction, 3. In agriculture the level of return on investment increased for the first time in many years.

During the first years of the current five-year plan, steps were taken to intensify the economy measures. The direct result of this was the more rapid reduction of the expenditures for the creation of output. The production costs in industry in 1986 were reduced 3 times more rapidly than the average for the 11th Five-Year Plan, and in construction, more than 5 times. Another substantial factor is that the stabilization and certain reduction of expenditures has also been noted in agriculture.

The reduction of expenditures in the process of production was favorably influenced by the acceleration of the increase in labor productivity and the reduction in the return on investment, which reduction was smaller than during the past period. Another factor that played its role in this was the economizing of material resources. But that source is still being used poorly, and one observes here even a lagging behind the past years. Thus, in 1986 the materials-intensity of the social product (not including depreciation) was reduced by 0.3 percent, as compared with the average of 0.5 in 1981-1985; and the metals-intensity of the produced national income, respectively by 1.4, as compared with 2.3 percent.

A major change has been noted in the acceleration of the turnover rate of material resources, as well as a reduction, after many years of increase, in the amounts of uncompleted construction and uninstalled equipment. This made it possible for the first time since the 1970's to achieve the outstripping increase in the volumes of production with respect to reserves. In 1986, with an increase in the reserves of commodity-material assets by 1.4 percent, the volume of the gross social product increased by 3 percent (in current prices).



Against the overall background of the acceleration of the volumes of production and a number of effectiveness indicators, one's attention is attracted by the slow dynamics of such economy-wide indicators as the national income, the productivity of social labor, the consumption fund, and the public's real income. In 1986 the increase in the produced national income was 4.1 percent, that is, it did not surpass the average yearly level that had been achieved in the 11th Five-Year Plan. During the first nine months of last year the volume of the produced national income increased by 2.4 percent. Consequently, the rates in average yearly computation (3.2 percent) remained at the level of the two last years of the past five-year plan. One sees in this the manifestation of a definite nonconformity between the acceleration of the increase of production and its final results, as expressed by the dynamics of the national income. The reasons for this discrepancy lie in the following.

First, since May 1985 steps have been taken to limit the production of alcoholic beverages, the production of which had been steadily expanding over the course of a prolonged period of time. In 1986 the amount of vodka and liqueur products manufactured was slightly more than half as much as in 1984. There was also a reduction in the production of other alcoholic beverages. As a result there was a reduction in the size of this component in the produced and used national income.

The limitation of the production of alcoholic beverages is a graphic example of the new quality of economic growth, an example that pertains to the intensification of the social directedness of the development of production and the increased efficiency of the consumption structure. The state took a deliberate step of rejecting the buildup of the growth rates at the expense of producing commodities whose consumption is harmful to the public's health and has a negative effect upon the moral atmosphere in society.

Secondly, in the formation of the national income, as a consequence of the worsening of the conditions on the world market, there was a reduction in the contribution made by foreign trade. Over a prolonged period of time the volume of foreign-trade turnover increased more rapidly than the national income. The outstripping of the rates of its increase with respect to the production of the national income constituted in the 8th Five-Year Plan a factor of 1.06; in the 9th, 1.4; in the 10th, 1.2; and in 1981-1984, 1.4. In 1985, as a result of the drop in the prices on the world market for Soviet export commodities and the increase in the prices of imported items, the volume of foreign trade in comparable prices dropped for the first time. In 1986, in comparable prices, the foreign-trade turnover increased by 2 percent, but in actual prices it decreased by 7.9 percent. As a result the increase in net output obtained thanks to the acceleration of the growth of production in the country was used partially to compensate for the losses incurred along the line of the foreign economic ties. In January-September

1987 the foreign-trade turnover dropped by the corresponding period last year by an additional 2.3 percent, including 0.5 percent for export and 4.2 percent for import.

Thirdly, the assignments for economizing material expenditures and for reducing the materials-intensity of the output were not fulfilled completely. Thus, in 1986 it was planned to obtain, at the expense of this factor, more than half the increase in the national economy's needs for fuel and energy resources, but only 42 percent was provided. As a consequence of the lesser reduction of the materials-intensity, the acceleration of the growth of production of output was not accompanied by the same increase in the rate of increase of the produced national income.

By virtue of the previously mentioned structural changes in the sources of growth for the indicator of the dynamics of the overall volume of the national income, during the period that is being considered the process of acceleration of the development of the economy is characterized incompletely. Under comparable conditions, with the achieved rates of development of production, the rates for increase in the national income would be substantially higher. This circumstance must definitely be taken into consideration when comparing the indicators for the current five-year plan and the previous one.

When analyzing the results of the development of the national economy during the first years of the five-year plan, the answer that is of primary importance is the answer to the question of the extent to which it had been successful to move ahead in resolving the strategic task advanced by the 27th CPSU Congress — the task of accelerating scientific-technical progress. In this very important sector the necessary turning point, if one is to judge from the statistical information and the statements made in the press, has not been achieved. The improvements were quantitative, rather than qualitative. The situation is being corrected slowly. This decisive factor in the new quality of economic growth has not yet been activated.

A leading role in the re-equipping of the national economy on a modern technical basis belongs to machine-building. However, its outstripping development with respect to industry as a whole, which development was stipulated by the five-year plan, has not yet been achieved. In 1986 it constituted (according to rates of increase) a factor of 1.4, instead of 1.7, for the five-year plan, and in 1987 the rates of development of machine-building did not go beyond the level of industry as a whole until November. One saw here the effect of a number of circumstances of a current and long-term nature. During the winter period the enterprises in the branches of the machine-building complex decreased the overall volume of production. Much time was spent in restoring the broken production ties dealing with cooperative shipments within the complex itself.



The increase in the requirements on the quality of output as a result of the introduction of state acceptance of output starting on 1 January 1987 had a greater effect on the operation of machine-building than in the other branches. The state acceptance system revealed serious shortcomings in guaranteeing the quality of the machinery, equipment, and instruments. For example, in January-September (average for the month), the output that was not accepted until additional work was performed and the output was submitted once again was valued at one billion rubles, which constitutes more than one percent of the monthly output.

One of the most important tasks assigned to machine-building is the renovation of its output. Last year that process was accelerated. For example, whereas during the first half of the year the share of output that was assimilated for the first time constituted in the overall volume of the commercial output of machine-building 4.3 percent, during the first nine months it increased to 7.2 (with a yearly plan of 7.6). In the third quarter the renovation reached 13 percent. There was an increase in the volumes of introduction of resource-saving technological processes and the formation of scientific-technical complexes continued.

However, machine-building continues to fulfill weakly its functions as a catalyst for technical progress. The production of a large quantity of obsolete machinery and equipment is continuing. The periods of time required to assimilate new technology in series production continue to be prolonged. The gap between production and branch and academy science that formed in previous years has not been eliminated. Many NIi [scientific-research institutes] and KB [design bureaus] actually are only beginning to restructure the subject matter of their research projects on the basis of the actual needs of production.

The integration of engineering and scientific-technical thought and production is hindered by the continuing lag in the material-technical base of industry, including machine-building itself. The rates of its development continue to be insufficient for their rapid rise to a higher qualitative level. As a whole the renovation of the favorable part of the fixed assets of industry (not including buildings and structures) — their activation with respect to the overall value of those assets — in 1986, practically speaking, was not accelerated, although in the fuel and energy complex and the machine-building complex a slight increase in the coefficient being considered was noted. There was a more noticeable increase in the norm for replacement of obsolete fixed assets, which increase constituted in 1986 for industry as a whole 1.8 percent, as compared with 1.4 percent in 1985. The coefficient of withdrawal of fixed assets increased to the same extent in the branches of machine-building.

The lag in construction is continuing to exert a negative effect upon the extension of scientific-technical progress. Despite the considerable acceleration in the growth of

capital investments, the investment process continues to be substantially deformed by the low technical level and the insufficient effectiveness of some of the projects being constructed, by the prolonged construction periods, and by the slow assimilation of the rated capacities of the activated enterprises and projects. The construction plans during the 12th Five-Year Plan continue to be seriously underfulfilled, and that has been restraining the expansion and renovation of our country's production potential on a modern technical basis. Hence the disproportions, the incomplete use of the created production capacities, the forced operation of obsolete and obsolescent fixed assets, and the large losses.

#### **Social problems, the providing of the public's demands**

An important differentiating feature of the period that has elapsed lies in the definite turn toward the resolution of social problems, toward the intensification of the social directedness of the development of production.

The most noticeable changes occurred in improving the public's living conditions thanks to the increased efforts in the fight against alcoholism. In 1986 the sale of alcoholic beverages dropped by 37 percent and during January-September 1987 by an additional 15 percent. The structure of national consumption improved. Positive social consequences of the steps that had been taken are manifesting themselves with greater and greater clarity. There has been a reduction in the work-time losses in production. In 1986 there was a reduction by one-third in the number of persons delivered to sobering-up stations, and a reduction by one-fourth in the number of crimes perpetrated when persons were intoxicated. There was a reduction in the accident rate on the job and at home and a considerable drop in the number of persons injured in automobile accidents. For the first time in many years the country had a drop in people's fatality rate and the rise in the average life expectancy was renewed.

Real steps were taken to overcome the remainder principle of allocating resources for resources for housing and social-cultural construction. Additional state capital investments in excess of the assignments for the five-year plan have been allocated for these purposes. There has been an increase in housing construction at the expense of funds provided by the enterprises and organizations, and an expansion of cooperative construction. As a result of these measures the volume of housing construction increased in 1986 by 5.2 million square meters, and in 1987 by 11.6 million square meters. The construction of other projects intended for social and cultural purposes has expanded.

The reform of the educational system is under way throughout the country. A program for the qualitative improvement of public health has been developed and is being implemented.

Primary attention is being paid to the resolution of such acute social problems as the satisfying of the public's demand and the normalization of the market situation. The implementation of the Food Program and the Comprehensive Program for the Production of Commodities and Services for the Public has been subordinated to this. However, as a consequence of the lag in carrying the measures planned by them, it has been impossible to achieve a complete balancing of supply and demand.

The market situation has been aggravated primarily because there has been an intensification of the extent to which the total of the monetary income received by the public surpasses the supply of commodities and services. The growth rates for wages have remained at the level of the previous five-year period, whereas the increase in commodity turnover has slowed down. The assignments for overall volume of commodity turnover in 1986 were unfulfilled by 10 billion rubles; during the first nine months of 1987 by 9.4 billion (including, without the sale of alcoholic beverages, by 4.9 billion rubles). The increase in commodity turnover is occurring to a greater and greater extent at the expense of an increase in prices, chiefly for alcoholic beverages. Thus, in 1986 four-fifths of the increase in commodity turnover was influenced by the price factor, and in January-September of last year, more than half. The slowing down of the increase in the sale of commodities to the public has not been compensated for by an expansion of paid services, where the planned assignments are also not being completely fulfilled.

As a consequence of the insufficient increase in the production of goods and services and their poor quality, there has been an increase in the scope of the unsatisfied demand. The amount of savings in savings banks and in cash has exceeded the optimal amount, in the sense that a considerable amount of those savings represents not simply a demand that has been postponed until the future, but rather a demand that has arisen in a forced manner and that has not been satisfied at the particular moment. This creates for many segments of the population difficulties in purchasing the commodities and services that they require to satisfy their needs, and violates the principle of paying for labor on the basis of its quantity and quality.

Putting it another way, in the area of social development also the new quality of growth has not yet manifested itself completely. It has not yet proven possible to achieve an acceleration of the growth of the public's real income. The assignments of the five-year plan with regard to this indicator are not being fulfilled completely, and with regard to the results for the first two years a noticeable lag has developed.

Table 4

Public's Monetary Income, Commodity Turnover, and Paid Services (Increase in %)				
	1986	1987	1985	Average per year in 11th Five-Year Plan
Wage fund for workers and employees	3.3	3.4	3.6	3.3
Payment of kolkhoz members' labor	5.1	2.5	3.1	4.2
Payments and benefits to the public from social consumption funds	4.1	4.8	3.1	4.6
Retail commodity turnover of state and cooperative trade system (in prices of corresponding years)	2.4	2.8	2.5	2.6
Sale of paid services	10.2	8.1	6.1	5.7

#### Restructuring of administration and the economic mechanism

During the period that has elapsed, the country's economic and social life has been increasingly determined by the restructuring of the system of administration, planning, and the providing of economic incentives.

In 1986 industry and a number of other branches were partially changed over to the management conditions which were worked out in the course of the economic experiment that has been carried out since the middle of the first five-year plan. In industry, the new operating conditions were in effect at one-third of the production associations and enterprises, which produced more than half the total volume of industrial output. In most of them the fulfillment of contractual obligations has improved and the growth rates for labor productivity have risen. The capabilities for expanding the scope of technical re-equipping at the expense of funds provided by the production development fund have begun to be used more completely. Since the beginning of 1987 the new operating conditions have been in effect at all the associations and enterprises in industry, personal services, the construction and agroindustrial complexes, general-purpose rail, river, and motor transportation, communication, and a number of enterprises in civil aviation.

Simultaneously a number of steps were taken to ensure the further deepening and improvement of the forms and methods of management based on principles of complete cost accounting and self-financing. Effective 1 January 1987, the following organizations were changed over to these conditions: three machine-building ministries

(USSR Minkhimash [Ministry of Chemical and Petroleum Machine-Building], USSR Minpribor [Ministry Instrument Making, Automation Equipment, and Control Systems], and USSR Minavtoprom [Ministry of the Automotive Industry], USSR Minneftekhimprom [Ministry of the Petroleum Refining and Petrochemical Industry], and USSR Minlegprom [Ministry of Light Industry], as well as 37 major associations and enterprises of other branches of industry. Those enterprises produced more than 20 percent of the total volume of commercial output.

A qualitatively new stage in the comprehensive transformation of the economic mechanism was opened up by the June 1987 Plenum of the CPSU Central Committee, which discussed the party's tasks of carrying out a fundamental restructuring of the administration of the economy. The Plenum's resolution was rendered in a concrete form in the package of documents that defined the trends to be followed in restructuring the planning, finance and credit, pricing, material-technical supply, and the activities of the ministries and the republic-level administrative agencies. After public discussion, the Law Governing the State Enterprise (Association) was enacted, and was put into effect on 1 January 1988. Proceeding from the principles enunciated in that law, preparation was made for converting, effective the beginning of the year, the greater part of industry and a number of other branches to the conditions of complete cost accounting and self-support.

It must be noted that the results of the work performed by the associations and enterprises converted to the conditions of complete cost accounting and self-financing were in 1987, as a rule, no better than for industry as a whole. They fulfilled their contractual obligations somewhat more successfully and achieved a greater increase in labor productivity. At the same time they were less successful in fulfilling the profit assignments, and fell back with regard to production growth rates.

Among the reasons for this situation it is necessary to mention first of all the miscalculations made when preparing to apply the new management methods. The economic departments and ministries were tardy in informing the enterprises of the plans and quotas, which in a number of instances were not stable and which gave the collectives little self-interest in mobilizing their reserves. Many questions pertaining to the material-technical support of production were not resolved promptly. The poor results achieved by the enterprises in the machine-building branches that had been operating under conditions of complete cost accounting and self-financing were influenced by the overall difficulties in developing that complex and by their nonfulfillment of the planned assignments. In light industry the administrators of many associations and enterprises, under conditions of the rejection of the centralized establishment of assignments for the overall volume of production and

the evaluation of their activities in fulfilling the contracts, failed to show the proper concern for building up the volumes of production of output or improving its quality for purposes of better satisfying the public's demand.

The elimination of these shortcomings when preparing to expand the sphere of complete cost accounting and self-support will make it possible to implement more completely the capabilities of the economic methods of administration. In addition to the large quantitative expansion of their application, this will be promoted by the restructuring that is currently under way in the activities of the central economic departments, ministries, and local soviets of people's deputies. The experience of the years that have elapsed confirms that the new economic mechanism can exert a real influence upon the development of the economy only if there is comprehensive application of its very important principles. The degree of this effect will increase as the economic reform deepens.

Thus, the results of the first two years of the five-year plan attest to the fact that the formation of a new quality of economic growth has been proceeding with no small difficulties. The reserves which it has been possible to activate so far have been mobilized partially by means of the previous, chiefly administrative methods of management. The acceleration factors that are linked with scientific-technical progress and the application of economic methods of management have not yet been properly activated. The acceleration of the development of production has not yet led to an increase in the growth rates of such generalizing indicators as the national income and the public's real income. Nor has one observed the providing of the necessary turning point in resolving social problems, primarily in normalizing the market situation or in balancing supply and demand. Similarly, one has not observed the proper implementation of the capabilities of increasing the effectiveness of production which have been opened up by the new management methods and by the conversion of the associations and enterprises to complete cost accounting and self-financing.

The further acceleration and buildup of the scope and depth of the reforms in the second stage of the restructuring are linked primarily with the mobilization of deeply underlying reserves — the increase in the rates of scientific-technical progress, the structural reforms, and the improvement of the quality of output and operations.

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### Round Table of Economists, Jurists Cites Needed Changes

18200098a Novosibirsk *EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA (EKO)* in Russian No 1, Jan 88 (signed to press 7 Dec 87) pp 24-46

[Round table discussion with R. O. Khalfina, doctor of jurisprudence, Institute of State and Law of the USSR Academy of Sciences, Moscow; Z. M. Zamengof, doctor of jurisprudence, Institute of the State and Law of the USSR Academy of Sciences, Moscow; V. F. Prozorov, candidate of jurisprudence, Scientific Research Institute of Soviet Legislation, Moscow; V. L. Perlamutrov, doctor of economic sciences, Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow; S. N. Bratus, doctor of jurisprudence, Scientific Research Institute of Soviet Legislation, Moscow; V. A. Kikot, candidate of jurisprudence, Institute of Economics of the USSR Academy of Sciences, Moscow; Ye. T. Gaydar, candidate of economic sciences, the magazine *KOMMUNIST*, Moscow; G. Yu. Glazkov, graduate student of the Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow; V. G. Ramm, candidate of technical sciences, Leningrad Branch of GIPRONIIPoligraf; V. N. Mashits, candidate of Economic Sciences, Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow; N. A. Preobrazhenskiy, engineer of the Leningrad Pigment NPO and V. A. Rakhmilovich, doctor of jurisprudence, Scientific Research Institute of Soviet Legislation, Moscow; conducted by T. N. Boyko and P. S. Filippov in the Central Economics and Mathematics Institute of the USSR Academy of Sciences]

[Text] The lack of coordination between the norms of economic law and the practice of management end up in extra costs in the economy and negative social and moral consequences. Straightening out troublesome socioeconomic areas will ultimately depend on the solution to this problem. Both traditional and nontraditional methods related to further development of socialist democracy are possible here. Economists and legal experts have gathered to discuss this subject at the "round table."

#### Unsatisfactory Condition

EKO: The results of research of economists are reflected in draft laws which are the "bread and butter" for legal experts. Is the current level of mutual understanding and cooperation between economists and legal experts satisfactory? How is it reflected in the quality of the draft laws?

R. O. Khalfina, doctor of jurisprudence, Institute of State and Law of the USSR Academy of Sciences, Moscow: I recall a time when in the USSR Academy of Sciences there was a single department of economics and law. We are artificially separated and the legal experts were "attached" to the philosophers. This caused harm

to both the jurist and the economists. The jurists engaged in questions of philosophy and economists began to write laws and decrees. The results are pathetic. We can see them clearly today.

Z. M. Zamengof, doctor of jurisprudence, Institute of State and Law of the USSR Academy of Sciences, Moscow: There is no doubt that the new economic legislation should rely on theoretically substantiated economic concepts. But we must not forget that the law has its own patterns. When developing legislation acts one should take advantage of the results of legal research and good technique for creating norms. Frequently progressive economic decisions in a draft law are formulated in such a way that it is difficult even to understand them not to mention use them. Instead of clear legal mechanisms for determining rights and responsibilities, the normative acts include slogans and declarations and the terms are interpreted differently.

V. F. Prozorov, candidate of jurisprudence, Scientific Research Institute of Soviet Legislation, Moscow: In the words of V. I. Lenin, the normative documents suffer from their "sweepingness, abstractness, and unbusiness-like appearance." The rights granted to participants in social relations are real only when they are backed up by defense of a violated right and measures for compulsory respect for these rights. A duty must become legal if there is a possibility of ensuring its execution. Many prescriptions of acts of economic legislation although they contain the words "right" and "duty" do not meet these requirements and only create the appearance of legal regulation. What is this—the inability to utilize legal means? Perhaps not. The imitation of legal regulation begins, as a rule, when the independence and rights of basic economic units are proclaimed and there arises the question of the responsibilities of management agencies. The authority of these agencies is so diffuse and general that it is difficult to establish the concrete limits of their competence.

There is much talk about responsibility in economic legislation. Here are examples from just one act—the decree of the USSR Council of Ministers of 28 January 1985, "On Further Improving Planning Estimate Work and Increasing the Role of Expert Evaluation and Authors' Supervision in Construction": "To make managers of main territorial administrations for construction and construction-installation trusts responsible for...." "to consider it necessary to increase the role of head engineers and head architects of plans who must bear responsibility for...." "to establish personal responsibility...of managers of ministries, departments, enterprises and organizations for...." "ministries and departments of the USSR and councils of ministers of the union republics to increase the responsibility of planning organizations for...." "the USSR Gosplan is to increase the responsibility of the state expert commission for...." Not one of the aforementioned prescriptions establishes new legal responsibility or increases existing responsibility.



As concerns "personal responsibility," each worker bears responsibility for proper performance of his work duties according to labor legislation. The words about the endless "increasing responsibility" of agencies and organizations are not followed by any real measures of a legal nature. What has caused all this verbiage about responsibility? A naive belief in the magic of the written word ("as it is written, so shall it be")? Or perhaps a lack of desire to change anything in reality?

It is possible to fill many pages with examples of prescriptions from acts of economic legislation that establish no policy and regulate nothing. And this leads to the idea that this situation is not an accident. After all, the drafts of decisions of legislative agencies are prepared basically by highly qualified specialists of the departments that are involved....

V. M. Zamengof: I think that the quality of draft laws can be improved if the texts were drawn up by temporary work groups of economists and jurists. The jurists' formalized thinking will help to avoid many imprecisions and contradictions.

V. L. Perlamutrov, doctor of economic sciences, Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow: Having worked for 20 years on problems of improving and restructuring the economic mechanism I came to the conclusion that the weakest link here is the legal one. If the level of legality and legal enforcement remains the same, we will never achieve any significant changes, even if the Gosplan, the divisions of economics of the USSR Academy of Sciences, and the ministries and departments are taken over by economic geniuses. It was emphasized at the 27th Party Congress that the feeling of being a master cannot be instilled with words. But for everyone to feel that he is a master of the means of production the new legislation should clearly determine the concept of "master," the limits on his rights and responsibilities, and the legal mechanism for protecting these rights and enforcing the performance of duties. Economists cannot carry out this task without the help of legal experts. Although many economists self-confidently assume that they themselves understand everything better than all others. This is a mistake.

R. O. Khalfina: Legal science has its own approaches to solving complex socioeconomic problems, particularly the requirement of the adequacy of the specific economic relation to the legal form. Thus its relations in the system of administrative hierarchical management (where the higher unit has the right to punish the lower one for disobedience) were to be embodied in the form of agreements, nothing would come of it except for eloquent words. For in order for an agreement to become something more than a formality, the parties must be legally equal. Since 1985 many normative acts have regularly included an appeal to establish direct ties between suppliers and consumers. But, as before, there are not enough of these ties. And those that exist are

frequently broken by the Gosplan, which is not interested in maintaining them. We will never begin to change as long as the Gosplan conducts itself in the old way.

Let us assume that it is established in the law that the enterprises have a right independently (without Gosplan sanction) to conclude agreements for long-term direct ties and in case of infringement on their rights, to initiate a suit to change the conditions of the agreements. The provisions will change: the enterprises will no longer be at the mercy of the Gosplan and it will be forced to change from a commander into an assistant, into an intermediary supply and sales firm. From this example it is clear how important it is for any economic decision to be correctly reflected by categories of the law.

S. N. Bratus, doctor of jurisprudence, Scientific Research Institute of Soviet Legislation, Moscow: I must say directly that economists have poor knowledge of the law, many do not understand it at all, and some are not even familiar with elementary legal categories and institutions. I have repeatedly been convinced that jurists involved in legal regulation of economic relations are more interested in economic literature than economists are interested in legal literature.

For decades economists have argued about whether or not we have commodity and monetary relations. Lamentations of some are well-known: they say that money is only an accounting unit. It turns out that the jurists have looked further. We have in effect the Basics of Legal Legislation of the USSR where it says that civil law regulates property relations with the utilization of the commodity-monetary form among socialist organizations, between organizations and citizens, and among citizens themselves. But up until recently commodity and monetary relations have played a weak role and the position of the jurists has turned out to be correct. Now it has been reinforced by the decisions of the 27th Party Congress.

It is wrong and harmful to reduce the role of jurists merely to formulating economic decisions. Economists, unfortunately, have frequently authored decisions that stand in contradiction to the essence of objective relations. It is the duty of legal science to point out their errors from its position. The norms of the law that correspond to economic realities contribute to the development of productive forces. But if they lag behind the conditions they are transformed into what the Romans called "bare laws": the laws cease to be in effect although nobody has abolished them. A "shadow" economy appears along with illegal activity. The conclusion: only with close contact between jurists and economists and with an accounting for the objective reality can legislation be effective.

#### To Proclaim or To Develop Democracy?

EKO: Today we must speak not merely about close contact between economics and law but about active support by the community of the reform whose essence

lies in the development of democracy. More and more frequently voices ring out in favor of real extensive enlistment in the development of economic legislation of specialists, scholars, businessmen, production collectives, and individual citizens. The democratization of the society is to a significant degree linked to the development of procedural guarantees when discussing and adopting laws.

V. A. Kikot, candidate of jurisprudence, Institute of Economics of the USSR Academy of Sciences, Moscow: The current procedure for bringing up and discussing legislative acts reflects the bureaucratic practice of management of the national economy. We are indebted to it for the fact that the concrete normative content is emasculated in the laws and instead of clear forms, supported with the necessary guarantees of implementation, there are general political declarations and good wishes. For the excessively general and abstract content of the law requires the development numerous legally binding acts (and sometimes at the very lowest levels) and makes it possible for the bureaucracies to interpret it first one way and then another in whichever way is most advantageous for themselves.

In order to improve the procedure for bringing up and discussing legislative acts, in my opinion, it would be expedient to increase the proportion of laws in the overall number of normative acts and to raise the level of legal regulation to the highest, which has the form of a law. This is possible, but not always. It will be necessary to increase the content and specificity of the laws so that each norm, even a general one, is a directive for a legally binding act.

Ye. T. Gaydar, candidate of economic sciences, the magazine *KOMMUNIST*, Moscow: We all understand that to declare the goals of the socioeconomic reform and actually to achieve them are not the same thing. If the development of new economic legislation were farmed out to departments whose workers have been trying to prove for many years that the reform is not necessary, that the national economy is developing nicely just as it is, we can confidently assert that the restructuring will suffer the fate of the 1965 reform—it will fail.

This is one of the roles of scientific workers and the community as a whole if transforming the system of management is so important today. What do we have? We have created numerous scientific agencies—scientific sections in commissions for restructuring, management which play basically a "decorative" role. Competent specialists are gathered together in them. They discuss the directions for restructuring the economic mechanism and write papers.... And in parallel laws and other normative acts are prepared which will also regulate economic activity. But representatives of science do not participate sufficiently in this work and they are enlisted enough for expert evaluation of the drafts. This

discredits science since scientific discussion, with rare exceptions, does not influence the decisions made by the working agencies and the commissions.

Z. M. Zamengof: Quite right. Legal decisions in the sphere of management are made largely without qualification of the opinion of legal scientists or else their opinion is not taken into account. There are no procedural rules whereby the special opinion of scientists would be brought to the higher agencies.

V. F. Prozorov: My experience in participating in commissions for preparing certain draft laws shows what the apparatus of the departments successfully applies administrative measures against scientific workers who are members of commissions: even if they are sent from other departments. Those who are inconvenient or disagreeable are either simply kicked off the commissions or politely sent away, for example, being offered a business trip abroad. Therefore scientists who are members of these commissions must be given certain procedural guarantees that their opinion will be taken into account.

It would expedient to adopt a normative act that regulates the development of draft laws which points out in particular that the draft of the law is not accepted without the signatures of all members of the commission and, if necessary, a written presentation of their special opinion. Today the attempt of a scientist to notify a higher agency of his objections makes him look like a complainer. Moreover, this normative act should contain requirement and instructions for preparing the draft law. Now this entails three or four brief sentences, frequently taken from a speech from the highest level. They can be interpreted fairly broadly and leave room for reflection of departmental interests in the draft law. The task must be set concretely (these are the socioeconomic goals we wish to reach by adopting this law). For as the order is so will the execution be.

EKO: What kind of law, in your opinion, would be considered good?

V. F. Prozorov: Certainly not one that is smoothly written and caresses the eyes when it is read. And not even one that is being obeyed in practice. But only one whose implementation will lead to the achievement of the concrete goals for which it was adopted. Now the achievement of concrete goals is far from always provided in legislation by legal means. For example, by the order of the Presidium of the USSR Supreme Soviet, "On Making Changes and Additions to USSR Legislation Concerning State Arbitration" (*VEDOMOSTI VERKHOVNOGO SOVETA SSSR*, 1987, No 7, p 92). It is established that Gosarbitrazh agencies give managers and other officials of enterprises, institutions and organizations mandatory instructions concerning the consideration of issues of holding guilty parties materially responsible for damage caused in connection with

legal violations in economic activity. Before the adoption of the aforementioned ukase the Gosarbitrazh gave not prescriptions but only announcements of suggestions concerning holding guilty parties liable and making reimbursement for the material harm they caused.

At first glance the requirements seem to be stricter. But the obligation to respond to an announcement or a mandatory prescription is not backed up by measures of coercion. A violation of these commitments does not entail punishment of the officials. Nothing is keeping them from simply making formal replies. While previously the arbitration board received answers like "Your announcement on proposals was considered and measures were taken," now the answer will be, "Your prescription was considered and measures were taken." Such answers do not generate confidence that the guilty parties have been held responsible for the material harm. In order for prescriptions to become really mandatory it is necessary to give the Gosarbitrazh the right to impose a fine on an official who has not followed the prescription or has not made notification of its execution backed up by documentation within the established time period.

P. S. Filippov: It is time to change over to a competitive policy for developing a draft law as a whole as well as its parts. SOTSIALISTICHESKAYA INDUSTRIYA once published the response received by a group of inventors to their draft law concerning inventions from bureaucrats of the corresponding department: "This is out of your realm...." But the attitude toward economic scientists and legal experts is no better. Registering in the normative act the requirement to bring up for discussion several competitive variants will help to change the situation, eliminate the actual monopoly of the departments on the preparation of draft laws, and facilitate the search for optimal solutions.

G. Yu. Glazkov, graduate student of the Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow: Here is a concrete suggestion: the Scientific Economics Society, the Soviet Sociological Association and the Ministry of Justice should jointly publish a special bulletin which would announce competitive drafts of laws and materials for their discussion. This would make it possible to prevent secrecy, to provide for openness, and to systematize various suggestions. For specialists also such a publication would be preferable to various separate articles. For it is not always professionals who select the responses to be printed in the newspapers and magazines. The editorial board of the proposed bulletin should be large enough to preclude the influence of the authors of one draft law or another on the publication of the competing variants.

EKO: Our conversation is always returning to relations between the administrative apparatus and scientific institutions. But the essence of the restructuring lies in expansion of direct forms of democracy. We are speaking about participation in the creation of laws of those very citizens whose interests are affected by the law.

Ye. T. Gaydar: Democracy can be proclaimed but it is perhaps impossible to develop it by traditional methods. The entrenched forms of social life, which are oriented toward rigid control of information and the suppression of any forms of social activity that are not sanctioned by the administrative and bureaucratic apparatus, are adequate to conditions whereby the main thing is to maintain political stability. But they absolutely do not correspond to the new conditions whereby the country's political leadership is trying to overcome stagnation and achieve social reforms. We need different forms which would help to resolve positively the basic collision of the restructuring, the conflict between its proponents and the administrative bureaucratic apparatus. It would be good to organize interaction "along the horizontal" of social scientists, businessmen, and all active proponents of the economic reform.

One of the possibilities is to organize in industrial centers clubs for interprofessional communication called "perestroyka" similar to those that are in operation in Moscow under the TsEMI of the USSR Academy of Sciences and under the Leningrad Oblast NEO Council. They create conditions for informal contacts among economists, sociologists, jurists and production workers in the discussion of socioeconomic problems and for their unification into temporary work groups when searching for ways of resolving conflicts and contradictions in the local areas. In these clubs it would be possible to prepare concrete proposals concerning improvement of normative acts and there would be an effective channel for communication with the press. Through them party committees would announce personnel for ideological work. Perhaps such problems can be resolved only in such public forms.

V. G. Ramm, candidate of technical sciences, Leningrad branch of GIPRONIIPoligraf: It would be expedient to develop institutions of direct democracy and grant the right of initiative in the development of draft laws not only to groups of specialists at scientific research institutes but also to groups of citizens if they gather the number of signatures required by law for the draft. We should possibly go even further and permit citizens to enter a draft law for referendum under these same conditions (if the necessary number of signatures has been gathered).

#### Expert Evaluation and Discussion

EKO: How do we create the most favorable conditions for discussing draft laws?

Here is a proposal: in the universities, the training and scientific research institutes, and in the enterprises to make special stands for anyone who wishes can raise his considerations regarding one draft law or another. These stands would be especially useful in scientific research institutes of an economics and legal profile: For the person who writes remarks about a draft law wishes to



make his considerations known not only to the commission for preparing it but also to his own colleagues. These stands will help to organize constructive discussions, form temporary creative collectives of jurists and economists, and arrange an exchange of materials among various scientific research institutes and VUZes. The law does not prohibit such a form of public discussion. The only thing missing is the tradition.

Rejoinder: Incidentally, "perestroyka" clubs which Ye. T. Gaydar mentioned could become not only a place for interprofessional communication of businessmen and social scientists, but also an additional informal channel for exchange of information in our transitional time.

P. S. Filippov: With nationwide discussion of the most important draft laws hundreds of thousands of suggestions come in to the newspapers and central agencies. Thus with nationwide discussion of the draft of the Law on the State Enterprise there were 180,000 suggestions, additions and changes. But only an insignificant proportion of them are published. The commission for development of the draft is familiarized with many of them. Naturally, the authors of the draft law are more willing to take into account remarks which tend to agree with them and frequently "brush off" those that contradict their opinion.

Z. M. Zamengof: I am convinced that there are few people in attendance at this round table who know how the results of the discussion of draft laws are summed up. Who decides and how do they decide which proposals are accepted and which are not? We have no procedure for evaluating the draft law itself or the additions that are made to it. And it necessarily must be determined by the normative act.

V. F. Prozorov: There are methods of expert evaluation of the legal quality of drafts of normative acts of an economic draft law and general methods for determining the effectiveness of drafts of normative acts. But the departments use any pretext to avoid utilizing these. And one can understand why: for these methods make it possible even before the adoption of the draft law to reveal its low quality and the inadequate qualifications of the developers which, of course, they are not interested in doing.

S. N. Bratus: I think that under the supreme soviets of the USSR and union republics it is necessary to create expert commissions of jurists who would check the drafts of laws and other normative acts (from the standpoint of legal rules, legal technique, systematic presentation, coordination, and correctness of terminology) before they are approved by the council of ministers or brought up at a session. Such expert councils exist in other socialist countries. In Yugoslavia its representative told me: "Not a single draft law gets to the Skupshchina without our opinion."

V. G. Ramm: Before 1929 in our country such functions of constitutional and general supervision were performed by the Supreme Court in conjunction with the general procurator. Approximately half of the issues discussed at its plenums were devoted to this. Many draft laws of the VTsIK and decrees of the SNK were rejected because of its opinions about their unconstitutional or illegal nature. Subsequently, because of the development of negative phenomena and the strengthening of the administrative bureaucratic apparatus, this function of the supreme court was abolished. But today, with the democratization of the society and the strengthening of socialist legality, we cannot ignore such valuable experience.

V. N. Mashits, candidate of economic sciences, Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow: In my opinion we should have open economic and legal expert evaluation not just in one place but in several, for instance, in the Institute of Economics of the USSR Academy of Sciences, the TsEMI, the Institute of State and Law, and so forth. The results of this expert evaluation should be published, for example, in the bulletin mentioned by G. Yu. Glazkov. And a generalization of the materials of the expert evaluation and the last statement could be made by the USSR Supreme Court. Here it is important for the expert evaluation to apply not to an individual draft law but to a package of normative acts. Otherwise they will inevitably be a repetition of what happened with the preliminary variant of the draft of the Law on the State Enterprise: half of the new categories were not determined. Although further administrative or economic methods of management will prevail in an economic mechanism depends largely on their interpretation.

EKO: We are discussing specific issues but we inevitably come up against general ones. The USSR Supreme Soviet is responsible for adopting effective and noncontradictory laws. It would be good to hear suggestions concerning improvement of the procedure for discussing laws and how active this discussion is.

N. A. Preobrazhanskiy, engineer of the Leningrad Pigment NPO: Deputies of the USSR Supreme Soviet gather in session only twice a year. This is hardly enough. For example, deputies of the Sejm in Poland are continuously working in commissions and gather in session almost every month. Nonetheless Polish economists think that the Sejm do not manage to change economic legislation promptly.

EKO: Perhaps one should not compare the Sejm and Supreme Soviet so directly, but there is certainly something to think about here.

V. A. Kikot: Moreover, the very nature and content of the laws that are adopted are closely connected to the composition of the Supreme Soviet. The earmarked change in the procedure for elections as deputies and the nomination of several candidates for one position will



help to select the most active and competent deputies. Up to this point, unfortunately, more attention has been devoted to observing the previously given proportions (among social, age and other categories) and to the merits of the candidates in their basic job. But we are not electing directors or brigade leaders but deputies who must develop and adopt effective and prompt laws, plans for economic and social development, and state and local budgets, monitor the work of the executive agencies, and so forth. The nomination and election of people capable of successfully carrying out this work would correspond to Lenin's principle of selection and placement of personnel according to political and business qualities. I am convinced that among workers, kolkhoz workers, and intelligentsia one can always find people with active civic positions who are intolerant of shortcomings and, which is especially important, who are competent enough.

Moreover, when comparing the composition of our highest agency of authority and analogous agencies in the fraternal countries, I became convinced that we are in a disadvantageous position: we do not have enough jurists and economists among our deputies. It is important to overcome this shortcoming quickly also because it is necessary to change the practice of preparing and discussing draft laws in the Supreme Soviet. If the draft of a law concerning a certain agency is prepared by that agency itself, the head of that agency reports on it in the session, and the Supreme Soviet accepts the law almost without any discussion, their arise serious misgivings that the law will deliberately reflect departmental and not general public interests! Is it not better to adopt the practice of other countries where the draft law is prepared by a group of deputies who, if necessary, summon ministers and bureaucrats and question them under oath? In other words it is necessary for the Supreme Soviet when considering and adopting laws to prescribe to the departments how they are to operate and not allow the department to take advantage of the authority of the Supreme Soviet and the law in order to protect its own interests.

V. L. Perlamutrov: I agree that the question of the civic activity and competence of the deputies and the effectiveness of their work is extremely important. Several years ago on an assignment from the secretariat of the Presidium of the USSR Supreme Soviet I participated in the analysis and generalization of proposals of deputies of the Supreme Soviet. All of them were extremely concrete: it is necessary to build a bridge, repair a school building, and so forth. There is no doubt that all this is very important but this is not the level of the Supreme Soviet! Only one proposal—concerning the national economic plan and the state budget—was appropriate. I looked at the signature: vice president of the Estonian SSR Academy of Sciences, A. A. Kyeyerna, an economist by specialty. Draw your own conclusions....

I am convinced that a law that is violated is worse than no law at all. Once every 5 years the Supreme Soviet adopts a law concerning the five-year plan. And not a

single one of them has ever been fulfilled. Thus the supreme agency of authority tacitly recognizes that it is possible not to fulfill a law. We must either select a different form of law concerning the national economic plan, one that is more general and is defined primarily by social goals in the given planning period and resources for achieving them, or this should not be a law but a working plan for the council of ministers which can be fulfilled, or perhaps not.

V. A. Kikot: In my opinion the law that has the highest legal force and is subject to mandatory execution should establish only the general rules of planning and the basic goals and tasks, and not the detailed planning indicators or assignments. The current plan which changes operationally depending on foreign economic and political conditions, the harvest and so forth cannot be one of these. It could expediently be established (on the basis of the law) by a legally binding act of a high level (government decree) which is mandatory for departments and other performers but which allows the necessary changes in justified cases.

#### Under the Mask of Legality

EKO: As practice shows, the most progressive law loses its significance if the departments publish legally binding acts that contradict it. The procurator is supposed to check to make sure that the departmental acts correspond to the law. But the activity of this office for general supervision is causing justifiable complaints. How do we activate its role and also change the procedure for preparing departmental normative acts in order to provide production collectives and individual citizens with a real possibility of defending their legitimate rights?

Z. M. Zamengof: I wish to draw attention to the fact that for laws a 7-day time period is established for publication in the *VEDOMOSTI VEREKHNOGO SOVETA SSSR*. Within 10 days after the publication (if a stipulation has not been made on a separate line) they go into force. But for decrees of the USSR Council of Ministers and union republics there are no such time periods and they go into force immediately after adoption! In practice many decrees are either not published in the collections of decrees or they are printed in newspaper form, that is, in the form of paraphrase which cannot be used as a normative document.

V. L. Perlamutrov: The Law on the State Enterprise has a good norm, for which economic songs have been striving for more than 30 years: it establishes the sequence of payments of enterprises on their commitments as they arise. This norm as early as 1954 was included in the draft of the decree of the USSR Council of Ministers concerning the USSR Gosbank but on the insistence of the finance minister at that time, A. G. Zverev, it was taken out. Therefore at the enterprise up until recently a different policy has been in effect: first you deal with the budget, give out wages, pay the

suppliers, return bank credit, and only then do you pay your fines. What sanctions are these for negligent workers! Even if the matter is brought before the Gosarbitrazh and the case is won, the responsible person throws up his hands: "I have not yet settled with the budget or paid my wages...."

As a former worker of the Ministry of Finance I guarantee that if we do not establish control over departmental acts soon, there will be instructions like: From such and such a subaccount, it is necessary to transfer money for this before that...and the law will be violated. The existing instructions of the Ministry of Finance, apparently, have never been evaluated by anybody for their volume. And here are the instructions from the Gosbank (only the basic ones) which in terms of volume are greater than Tolstoy's "War and Peace." How easy it is for departmental interests to win out! The Ministry of Finance also has its jurists who know the laws very well. By virtue of their position they are inclined to observe departmental interests. And they successfully perform this duty also because we have no effective defense of public interests in our legally binding creation of norms.

EKO: What can you suggest?

V. L. Perlamutrov: Step up the work of the deputies of the Supreme Soviet; they should earn their wages precisely in the soviet and on its permanent commissions and check to make sure that any act of executive authority corresponds to the law and that the law itself is proper!

V. M. Mashits: Let us turn to practice. Is the KZOT sufficient for businessmen? No. As a rule, they read the commentary to the KZOT or, if the matter reaches the point of a concrete issue, they use the bulletin of the USSR State Committee for Labor and Social Problems. That is the interpretation of any legal fact is looked for not in the law but in the instructions prepared by the departments. Not only laws but legally binding normative acts supplied by the USSR Council of Ministers grow into an avalanche of such instructions. Almost all decrees of the Council of Ministers end with approximately the same phrase: "Within a period of 2 months the corresponding departments are to develop the proper normative acts." And then the departmental game begins: instructions, provisions, explanations, and methodological guidelines are prepared, and there are cases of poor coordination and contradictions which lead the directors to heart attacks.

It is time finally to introduce a policy that contributes to their coordination with the law and among themselves. If the discussion of the draft law is included in the plan of the work of the USSR Supreme Soviet or a decree of the USSR Council of Ministers is prepared, at the same time there should be a plan for preparation of the entire package of departmental acts and commentary to the law as was the case, for example, when preparing the Law on Trusts in 1923. Moreover, it is necessary to have a

mechanism for prompt correction both of the laws and of the legally binding acts. For this is abnormal: legal norms come into contradiction with life, force businessmen into antilegal actions, and the departments and legislative agencies are left alone!

R. O. Khalfina: I have had occasion to ask the procurators of Krasnodar and Khabarovsk krais as well as certain oblasts why they do not take advantage of their rights when clearly illegal departmental acts are published. "We cannot deal with this," they answered me. Possibly this is true. But, in my opinion, the reason has nothing to do with incompetence but rather a lack of the proper interest on the part of the workers of the procurator's office. For a departmental act infringes not on their rights and interests but those of the citizens or collectives of enterprises. If the ministry publishes instructions which, in the opinion of the administration or the council of the labor collective, infringes on the rights of the enterprise, they must have the opportunity to demand through the court that this departmental act be abolished.

N. A. Preobrazhenskiy: In Poland since 1982 there has been a constitutional tribunal which considers suits concerning this correspondence between the law and the constitution and between legally binding acts and the laws. They have legislatively earmarked a long list of subjects that have the right to bring suits. And they successfully take advantage of this right. In 1986 alone dozens of legally binding acts were abolished, including decrees of the Council of Ministers.

Z. M. Zamengof: One must recognize that the Gosarbitrazh today rarely thinks about the fact that Article 19 of the Law on the USSR Gosarbitrazh essentially pertains not to individual acts of management but to departmental normative acts. A departmental act that is illegal in practice, when resolving concrete disputes may not attract attention but still it continues to be in effect and regulate the activity of numerous enterprises! The Law on the State Enterprise envision the right of the enterprises to turn to the Gosarbitrazh and request the abolition of an illegal departmental normative act. Now it is necessary to make sure that this right actually is exercised in practice. And, of course, it is necessary to publish in an official publication a list of departmental acts that are recognized as illegal.

EKO: Do you think that the opportunity granted to the enterprises of defending themselves in the Gosarbitrazh from illegal departmental acts radically changes the situation?

Z. M. Zamengof: No, it will not be likely to improve unless we sharply change the methods of creating norms and begin to follow the principle of "everything that is not prohibited is permitted." Today the avalanche of departmental acts (for capital construction—11 volumes, for finances—10, for material and technical supply—5 volumes) is essentially a long-winded list of

everything that is permitted to the enterprise. But, after all, everything cannot be taken into account and life changes. I know cases in which the bank has refused to let an enterprise purchase a color television set because the instructions that had been drawn up at that time did not mention these television sets.

It is necessary to state simply that: the enterprise has the right to carry out any activity that is not prohibited by the law and make any decision with the exception of those which the law includes within the competence of the higher agencies. The method of general permission will reduce the number and volume of legally binding normative acts many times over. At the June (1987) Plenum of the CPSU Central Committee M. S. Gorbachev suggested precisely this way for solving the problem of the lack of correspondence between instructions in effect and the Law on the State Enterprise.

It is also necessary to clearly delineate the competence of each departmental agency for issuing normative acts. In the laws one frequently encounters the formulation "The Departments Issue Normative Acts Within Their Competence," but the limits of this competence is not determined by the law. It has reached a point where the departments themselves issue normative acts that regulate their relations with citizens and organizations. Thus the USSR Ministry of Communications established a policy that is very convenient for itself: it has the right to confiscate telephones from citizens. There are many examples like this. In my view the law must limit the competence of executive agencies in such a way that they can establish only the technology for fulfilling the laws and departmental decrees (and under supervision), but in no case can they do this with the rules for their relations with citizens and organizations.

V. A. Rakhmilovich, doctor of jurisprudence, Scientific Research Institute of Soviet Legislation, Moscow: First of all it is necessary to establish the hierarchy of legally binding normative acts. Today the law does not say directly that if an act published by a lower departmental agency contradicts an act published by a higher one that it is ineffective. Jurists recognize that that should be the case but there is no corresponding legal norm. The aforementioned Article 19 of the USSR Law on the Gosarbitrazh said that if one of the parties in a dispute bases his complaints on a departmental act that contradicts the law the arbitration board refuses to satisfy the complaint. But nowhere are there any norms that permit bringing a suit for arbitration for the annulment of an illegal departmental act.

V. F. Prozorov: The Scientific Research Institute of Soviet Legislation has developed and submitted to the directive agencies a draft of a decree that regulates the publication of legally binding acts. It is suggested that centralized state accounting and registration of departmental acts be introduced as well as preliminary verification of their veracity in that an act be considered in force only after it is published in a special publication.

And it is recommended that a time period be established for revising the numerous departmental acts that have been accumulated, that they be registered and published, and that unpublished ones automatically be regarded as invalid.

V. A. Kikot: We shall not build illusions: the majority of workers have no interest in what is prescribed by the law and what their boss says carries much more importance. And it is not any incompetent or poorly educated people who think and act this way. This is a generally accepted view, which opens up the way for bureaucratic arbitrariness and returns us to archaic times. Of course, democratization of all aspects of social life and the election of managers destroy the basis for this kind of world view. But we need radical legal measures in order for respect for the law to surpass obedience to immediate superiors in the consciousness of the people.

I wish to recall the article by Marx entitled "The Oath of the English Soldier" where he writes that if soldiers who have violated the law justify their actions in court by referring to an order from their superior, the German and French courts immediately exonerate them, but an English court will throw out such an argument. As a free subject, the soldier is obligated first and foremost to obey the law. If you break the law you are held responsible. Marx held precisely this approach. Today we must strictly demand that the official, the collective and the citizen first of all meet the provisions and requirements of the Constitution and the laws and not be able to violate them, even if there is an illegal order from the superior or an illegal departmental instruction. An order from the minister, director or superior must be followed by the lower-ranked workers deliberately, with an understanding that it does not contradict the law.

EKO: But this means that the workers must at least know the law and be protected in their relations with their immediate supervisors. Now the problem of informing workers of enterprises and individual citizens is becoming very critical.

S. V. Aleksashenko, senior researcher of the Central Economics and Mathematics Institute of the USSR Academy of Sciences, Moscow: Here is just one of numerous examples. When working at the TsEMI in the Glavpodshipnik Association, I asked for normative documents concerning the changeover of the association to cost accounting. They only gave me the order from our minister. The others, including the corresponding decree of the CPSU Central Committee and the USSR Council of Ministers, they did not have and did not know. It turns out that when the meaning of the decrees of the central agencies is distorted in departmental acts and this, unfortunately, happens fairly frequently, the workers do not even have any suspicion of this. The level to which they are informed is extremely low. Moreover, the technology for informing enterprises of normative acts



today is such that when it is necessary to evaluate the correctness of various decisions it is frequently simply impossible to find the necessary information.

Z. M. Zamengof: Many critical remarks have been uttered about the atmosphere of secrecy around the bureaucratic procedure for publishing departmental acts. Incidentally, the law does not envision the use of the stamp "For Official Use Only." But in practice it is used extremely broadly. It is time to be concerned about serious legal guarantees for providing the access of organizations and citizens to the normative and other information they need.

#### Should Relations Be Damaged?...

EKO: We should like to hear the opinion of participants in the round table concerning the development of reciprocal relations "along the vertical." The Law on the State Enterprise envisions for the first time financial responsibility of higher agencies for harm caused to the enterprises by their instructions.

N. A. Preobrazhenskiy: In Bulgaria such a legal norm was introduced in 1980. But as the country's head arbitrator, Chudomir Goleminov,<sup>1</sup> writes in his monograph, the managers rarely take advantage of this right. The reason lies in the hierarchical nature of interrelations "along the vertical." This experience is alarming.

R. O. Khalfina: Under the conditions of directive planning all relations "along the vertical" having practiced amounted to administrative methods. With a changeover to economic methods some of them will assume the form of commodity-monetary relations. But quite different legal norms are inherent in these relations. I assume that careful legal regulation of these property relations will limit administrative management. Here, naturally, it is not enough to have the short formulation contained in the Law on the State Enterprise. It is necessary for the law to envision various concrete forms of relations and the most typical conflicting situations and that it provide the necessary legal guarantees.

P. S. Filippov: The delimitation of administrative and commodity-monetary relations "along the vertical" is closely linked to a revision of the functions of central agencies. All relations that allowed the contractual form should be changed over to it. Now, for example, scientific research and experimental design work is financed from the Unified Fund for the Development of Fines and Technology of the ministry and essentially is free for the enterprises, but it must be used through the enterprises through economic agreements. If an enterprise has a need to combine its funds for financing a specific large-scale development, it can do this on a strictly contractual basis. The former ministerial divisions singled out into an independent cost-accounting consulting

firm on the basis of contracts would begin to search for work performers, contracting agencies, and subcontractors. Supply-sales subdivisions of ministries could also become such firms.

Of course there are relations which in principle are impossible in the commodity-monetary form. For instance, the long-term economic normative of deductions into the budget from cost-accounting income should be established by central planning agencies. Today authoritative administrative management remains in force. But this does not mean that there is no need for legal regulation of these relations and democratic control over them.

A special legal regulation is also required by relations in which the central agency is the organizer of competition and the enterprises compete for concluding agreements for filling the state order. It is necessary to take into account that the women in the competition will far from always be determined according to economic criteria and frequently social goals will prevail. But legal guarantees of openness and fairness of the competition are important for the enterprises. There can be justifications for suits with reimbursement for damages, say, because of incorrect initial orientation of the participants by the agencies instituting the competition which involves unnecessary research and development.

EKO: When discussing measures that motivate enterprises to demand the abolition of illegal decisions of higher agencies and reimbursement for losses caused by them, it is reasonable to ask this question: will the corresponding sanctions influence the position and earnings of the workers of these agencies?

V. G. Ramm: Here is something for both jurists and economists to think about. There is a need for material and legal responsibility on the part of specific workers of administrative agencies for their actions, which would be occasioned by the interests of the cost-accounting collectives. It might possibly be expedient to grant the collectives the right to demand in court not only reimbursement for losses but also punishment of the bureaucrats who have allowed illegal actions. Otherwise, if he goes unpunished, the bureaucrat will make up for losses to one enterprise out of the state pocket and will immediately repeat his actions with respect to another enterprise. Incidentally, in the first Party Program it said that the Constitution of the future democratic republic should provide for "the right of each individual to prosecute any bureaucrat under the regular policy through the court." This right should certainly be granted to collectives. Punishment of bureaucrats for arbitrariness and incompetence in management should be irreversible and specifically directed. These measures and an effective system of material incentives, in my opinion, will help to actually improve the work of management agencies.



**EKO:** What positive experience in legal regulation of relations "along the vertical" in socialist countries could be used?

**N. A. Preobrazhenskiy:** In Poland since 1960 there has been in effect the administrative-procedural code which regulates the adoption and appeal of administrative decisions. There are administrative courts and the high administrative court which, in particular, examines suits of enterprises against higher agencies for reimbursement for damage caused as a result of incorrect actions or inaction on the part of these agencies. That is, the cost-accounting collectives themselves protect their own interests. This experience proves once again that we should not count only on procurators' supervision in providing for legality.

A couple of words about the influence of foreign economic factors on reciprocal relations "along the vertical." Directors of enterprises (even elected ones) simply find it disadvantageous to bring suits and damage relations with higher agencies on whom they largely depend. But councils of labor collectives feel free and ready to defend their own legitimate rights. Therefore when such councils were created in Poland in the second half of the 1950's the number of suits against ministries increased sharply. A similar picture is taking form now. And what does this tell us? We must not only coordinate the earnings of managers with the cost-accounting income of the collective, but also regulate the procedural issue, for resolving conflicts between the director and the council of the labor collective and between each of them and the higher agency. It is useful to use existing legislation of Poland and Yugoslavia as an example.

**V. A. Rakhmilovich:** Indeed, regardless of how well a procurator's office may operate, it is not able to defend all of the commodity producers in their relations with central agencies. I agree that it makes sense to transfer the means of defense to those whose rights are being violated. But this is not enough. It is necessary to motivate them to defend their rights. If a right is nominal, neither the council of the labor collective nor the director will try to defend it since this can cause unpleasantness. Defending the interests of the collective should be linked to the entire system of economic relations. If, for instance, fines are simply transferred to the budget without being reflected at all in your income, why would you try to impose them, exerting additional efforts in order to do this?

**EKO:** And what does our legislation prescribe?

**V. A. Rakhmilovich:** If you have not demanded payment of a fine or sanction, if this is revealed in an inspection, you pay 1.5 times as much into the budget. In other words, if you do not defend your own rights you yourself are penalized! But still it is known that you do not accomplish much with penalties and that positive incentives are of much greater advantage. Therefore only by creating a system of relations in which the profit of the

enterprises will actually be determined by the incomes of the workers will it be possible to motivate the collectives to elect intelligent directors and impose sanctions against guilty parties both "along the horizontal" and "along the vertical."

**EKO:** Let us sum up the results of our discussion. Participants in the round table are unanimous in the opinion that the interaction of jurists and economists in developing new economic legislation should be strengthened and that it is necessary to look for nontraditional forms (particularly creative groups for developing draft laws on a competitive basis). Certain economists retain a kind of "legal nihilism"—a lack of knowledge of the peculiarities of the law as a system and ignorance of its own rules of behavior. There is also a reproach against jurists: in the drafts of new laws one increasingly senses a shortage of good techniques for creating norms and they are too diffuse and declarative.

When developing drafts of normative acts it is important to overcome departmental bureaucracy and the voice of scholars should be decisive. It is necessary to look for new forms of participation of science and the public at large in bringing up and discussing draft laws and in summing up the results of the discussion. The time has come, as is required by the decisions of the 27th Party Congress, to develop forms of direct democracy, having granted the right to legislative initiative to groups of citizens who have collected the number of signatures established by law. It is also necessary to step up the work of the deputies of the USSR Supreme Soviet for discussing draft laws in permanent commissions and sessions.

Participants in the round table discussion noted that under the conditions of economic independence of enterprises it is necessary to shift the center of gravity of legal regulation from departmental orders and instructions (which corresponded to the nature of the administrative-bureaucratic system of management) to laws which should more fully determine the rights and responsibilities of subjects of management. It will be necessary to break the ingrained tradition whereby an order or instruction is more important than the law in the eyes of the worker. In order to do this the execution of an illegal order or departmental act should necessarily lead to punishment both of the individual who issued the order and of the one who executed it. It is time to increase the authority of the law in all ways.

It was suggested that we regulate the procedure for open discussion and adoption of legally binding normative acts and regulate their registration, accounting and publication. It will be necessary to create conditions whereby production collectives and groups of interested citizens will be able to defend their interests and legal rights in court and dispute the adoption of illegal departmental normative acts. This activates the procurator supervision and makes it more effective. It is necessary to

improve the system of legal responsibility of workers of ministries and departments for damage caused by their actions or inaction to cost accounting collectives.

As M. S. Gorbachev said at a meeting with the leaders of the mass media and creative unions, now, when "processes of democratization are developing in the country we must still support them with the corresponding legal base. Here we still have a great deal of 'meeting' democracy, although even current legal prerequisites must have advantage of and utilize what there is."

The radical economic reform whose basic directions were adopted by the June (1987) Plenum of the CPSU Central Committee requires the development of new effective and coordinated economic legislation. This task can be carried out only through the efforts of economists, jurists, and the public.

#### Footnote

1. Review of the book by Ch. Goleminov, "Pravovyye aspekty novogo ekonomicheskogo mekhanizma v NRB" [Legal Aspects of the New Economic Mechanism in Bulgaria] (Moscow "Progress", 1984) published in EKO, 1986, No 4, pp 209-218.

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#### Conflict in Bureaucratic, Judicial Views of Economic Crime

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[Article by A. Yakovlev, doctor of juridical sciences, professor: "Departmental Criminal Law?"]

[Text] It is well known what damage is done to our society by economic crimes—thefts in production, misappropriations, bribes, and so forth. Both the law and organs of justice wage a fight against them. Often, however, economic managers with initiative are included among criminals. An analysis shows that such practice is not an excess. It reflects a definite line and a tendency, not the limitation of individual workers of law protection agencies.

An acute need for wooden patterns for casting arose at a number of industrial enterprises at the beginning of the 1980's. Their lack jeopardized the fulfillment of key planned assignments. Patternmakers at the experimental production enterprise on their initiative began the output of these patterns, because the "legitimate" products of the experimental production enterprise proved to be unnecessary for consumers.

On 4 August 1981 the court of the first instance convicted seven patternmakers of misappropriation of state funds in especially large amounts, abuse of their official position, official forgery, and private entrepreneurial activity. The court noted in the sentence that the workers stole state funds totaling 231,303 rubles.

On 4 December 1986 the Plenum of the USSR Supreme Court evaluated the circumstances of that case differently and established the absence of elements of theft, abuse of official position, and official forgery. Is such a fundamental difference in the opinion of two court instances accidental? One of them found the defendants guilty of a serious crime, for which the application of the highest punitive measure is possible, while the other (having examined the same facts!) completely cleared them of such a charge.

What happened? Investigatory agencies and then the court of the first instance considered the money, which in no form had been appropriated by the defendants, stolen from the state. This money was either recorded as the profit of enterprises, or was openly received by patternmakers in the form of wages. These funds were considered stolen by the defendants.

How did such an evaluation become possible? The point is that, contrary to the law, the investigation and the court of the first instance used an extraordinarily broad interpretation of the very concept of misappropriation, completely ignoring the objective description and the true meaning and significance of this crime. Its meaning is as follows: Misappropriation is an actual, real, and gratuitous transfer of socialist property to the plunderer's ownership. However, the concept that a person can be convicted for so-called "misappropriation for the benefit of third parties" has firmly entered the practical work of law protection agencies.

Two essential circumstances characterize such practice. First, the only necessary description of misappropriation as causing damage and harm to state or public property is completely eliminated from the examination. Second, misappropriation begins to be seen where, in fact, remuneration for (real and socially useful) labor is accompanied by a violation of the departmental standard. Yet such standards can reflect narrow departmental, not general state, interests and, in reality, their observance can do damage to socialist property. However, if a law protection agency, without going into the heart of the disagreements, takes the department's position, criminal punishment can prove to be not only unjustified and illegal, but, it is not ruled out, will do damage to socialist property, whose protection should be the goal of criminal legislation.

In such cases the norm of criminal law is constantly replaced with the norm of a lower rank, a norm in the subordinate act—for example (as in the case of patternmakers), the norm contained in the obsolete price list. In fact, something like "departmental criminal law"

appears here. The subordination of criminal law to the departmental standard occurs within the framework of this "law," which can lead to direct damage to public interest.

Probably, someone will put such situations down to mistakes, which, moreover, are corrected by the highest court instances. I assume, however, that it is not only (and not so much) a matter of an erroneous interpretation of the law as of the existence of a sufficiently stable system of views and of a certain "punitive" psychology. This system of views has both its historical roots and its support in the modern apparatus for managing the economy, at least in some of its elements.

The situation, when a person, to whose hands absolutely nothing "sticks," is punished, or an attempt is made to punish him, at the same time, ignoring the objective results of his activity, suggests the idea that, in fact, he is punished for something else, although this is not said openly.

Let us glance at history. A law determining that the sale, exchange, and release on the black market of surplus and unutilized equipment and materials, as well as their illegal purchase, are a "crime equivalent to the plunder of socialist property" was adopted in 1941.

The text of this norm is very instructive. It acknowledges that it is a question of surplus and unutilized equipment and materials. Who and what suffers if enterprises in the interest of production exchange or sell these surplus and unutilized materials to other enterprises? Socialist property? Obviously, not. Nevertheless, such an activity was declared a crime "equivalent to plunder."

People can say: This is history. True. Now criminal law does not know such a prohibition, which at one time was justified by the reference to wartime conditions. Moreover, article 4 of the Law on the State Enterprise openly legalizes the sale of surplus equipment (as is well known, its present stocks amount to billions of rubles and the rates of their growth outstrip the growth of the national income as a whole). What has changed? Why what was criminal in the past has become legal (and desirable and economically necessary) now? The answer is not very complicated: The new law transfers the right of disposal of socialist property to collectives and managers of enterprises, thereby violating the corresponding exclusive right of the department.

Another example. A legislative act, according to which an increase in the wages of workers and employees without the consent of the central department should be punished criminally, was adopted in 1932. It is sufficient to compare this act with the norm contained in article 3 of the Law on the State Enterprise, which grants the enterprise the right to calculate on its own the wage fund according to the normative method, and the meaning of

the evolution that has occurred becomes clear: What was considered an inviolable prerogative of the "center" is now the inalienable right of the enterprise.

However, one thing can be seen from both of these examples (they can even be increased): In fact, not socialist property, but the exclusive right of the department as of the entire administrative system to the disposal of this property was placed under the protection of criminal laws in the cited acts of the 1930's and 1940's. The authority of the department was ensured by the threat of criminal punishment for those that tried to violate it, no matter what motives guided the "violate." Thus, a broad interpretation of the concept of "misappropriation" is none other than an attempt to punish for an encroachment on the exclusive right of the department.

Has such an approach been overcome? It would seem, yes. The above-mentioned laws containing criminal sanctions were revoked. However, something and very important at that remains. First, as we saw, departmental discretion giving scope for the creation of norms of "departmental criminal law" persists. Second, elements of "punitive psychology," which adapt the formula of criminal law to departmental or local interests, are also alive.

Of course, a sentence where the sale of unnecessary equipment, after the pattern of 1941, would be considered "equivalent to misappropriation" cannot be found now. However, examples of the practice of court examination, when managers are punished for so-called "misappropriation for the benefit of third parties," are today's facts. Let us recall the same brigade of pattern-makers, to which criminal law, in fact, was applied, because workers tried to set up the necessary production, to determine rates and the wages corresponding to them on their own, and to come to an agreement about prices with customers. In other words, the working collective encroached on the department's prerogative and corrected what openly hampered a rational and efficient economic activity, that is, began restructuring in reality.

Departmentalism and localistic tendencies are not abstract concepts or categories. They live and operate, leaning on the punitive force of criminal law. Moreover, we must still see what prevails in the end: formally revoked norms of the 1930's and 1940's, or presently in effect, new norms? The chronic prohibitive syndrome has proved to be too viable.

The transition at the end of the 1930's and the beginning of the 1940's to methods of "command" economy was accompanied by an extraordinary expansion of the range of punished acts. A kind of pattern was manifested there: depriving economic managers and labor collectives of economic and organizational independence and transforming peasants essentially into hired workers led to the weakening of economic incentives in the sphere of



production. They were inevitably replaced with noneconomic coercion, including in the form of criminal repression. Vague descriptions of such acts as "equivalent to misappropriation," "equivalent to wrecking," and so forth served to expand repression. The following were responsible criminally: resident agents, for inefficient house management; economic managers, for mismanagement; kolkhoz chairmen and board members, for nonfulfillment of forward contracts; kolkhoz members, for not working for the mandatory minimum of work days and for a careless storage of agricultural machines; workers, for being late to work and for unauthorized absence from work; plant managers and chiefs of technical control departments, for the output of rejects, and so on and so forth. Many of these norms were revoked and some remained. The tendency toward solving key economic problems in the criminal code has remained and manifests itself.

Moreover, in many cases precisely those that try to manage most efficiently fall into the category of criminal offenders. At the same time, it turns out that what is efficient economically at times is illegal and what is legal nearly always is inefficient economically. Thus, in the above-mentioned case patternmakers were cleared of the charge of misappropriation and abuse of official position, but the charge of "private entrepreneurial activity" was left in force. However, of what, essentially, did this activity consist? "They independently searched for clients and determined with them the volume of work and the list and cost of articles."

It is difficult to get rid of the impression that here it is not a question of criminal (that is, socially dangerous) activity, but of initiative and undertaking, which is an elementary condition for any type of efficient production. How [is it possible] to apply the category of "private entrepreneur" to workers, who created products necessary for socialist enterprises with their own labor?

To be sure, such an activity can conflict with departmental norms regulating (and, in essence, hampering) production development. However, if some type of activity is of benefit to society and does not contradict the principles of socialist production (although it violates administrative and economic standards), the formulation of the question of revising economic standards will be well-grounded.

The concepts of "socialist enterprise" and "undertaking" should not contradict each other.

11439

## PLANNING, PLANS, IMPLEMENTATION

### Enterprise Struggle for Realistic Plan Meets Obstacles

18200120a Moscow IZVESTIYA in Russian 5 Apr 88  
p 2

[Article by Yu. Perepletkin, IZVESTIYA correspondent: "Lawsuit. Interests of Labor Collective and Ministry in Collision—Who Will Have Last Word?"]

[Text] Tyumen-Moscow-Tyumen—(Editorial comment): An increased target is "handed down" to the plant and the collective protests.... Just a year ago a conflict of this sort would have been unthinkable, but the State Enterprise Law now in effect and the changeover of lower-level production units to cost-accounting [khozraschet] and self-financing are creating a new situation, one that is unusual for us. This was the specific topic of discussion in the article "Incident With Uralmash" (IZVESTIYA No 83). Obviously, it is time to work out a legal mechanism for regulating relations between planning instances and producers.

It was unavoidable that Minelektrotekhprom [Ministry of the Electrical Equipment Industry] would hold an in-depth discussion. The interested parties met in Deputy Minister Yu. Zakharov's office. Along with A. Korelyakov, the stubborn director from Tyumen, Glavelektroistekhnika [Main Administration for the Production of Power Sources] Chief Engineer V. Volynkin, Deputy Main Administration Chief V. Ponomarev and Director of the Scientific Research Institute for Starter Batteries V. Pankratov were present as well.

"All of us are aware," said Yuriy Vasilyevich, "that Comrade Korelyakov does not agree with the production volumes called for in the State Order—targets which, in my opinion, are completely justified. The plant protested our decision. This is an unprecedented case for this sector. I would like to express my views regarding this point."

The disagreements did not appear suddenly. As long ago as last spring, directors of the Tyumen Battery Plant attempted, on behalf of the entire collective, to bring the attention of its main administration to the obvious discrepancy in the plan and the enterprise's production potential. In numerous letters and calls to Glavelektroistekhnika, the Tyumen workers implored them to at least assess the situation realistically. Neither the productive capacities nor deliveries of accessory parts would make it possible for them to manufacture the called-for quota of batteries.

Theirs were voices crying out in the wilderness. No one took their arguments seriously. True, Main Administration Chief V. Soldatenko promised to come out in November. Instead, a commission showed up. They made checks, they made studies, they made inspections. And they concluded that the plan target had indeed been increased. Alas, at the end of December Minelektrotekhprom coldbloodedly sent the plant the 1988 control figures which, the Tyumen workers felt, were inconceivable. The plant was deliberately doomed to non-fulfillment, to fines, to zero "profits". And the enterprise is in desperate need of housing (right now they have to use borrowed money to do any building, so that half the apartments "melt away"), their two kindergartens have

been provided with little more than modest appointments and they need money to improve the working conditions in the plant's shops. And because of constant overloads, the plant's equipment has pretty well worn out.

The labor collective council held a meeting. Based on their calculations, a stepped-up but realistic plan was drawn up for manufacturing R38.8 million in consumer goods, i.e., over 1,400 batteries. But the ministry cited a different set of figures: R41.7 million and 1,547 batteries. And when the Law on State Enterprises (Associations) came into effect the battery plant sent two applications to Moscow—to the USSR Procurator's office and to Gosarbitrazh [State Board of Arbitration] with—requesting that they step in and reinstate justice.

And what further happened? Nothing.

"Imagine," Yu. Petelin, the plant's chief engineer said to me. "Our desperate move had about as much effect as punching a pillow. We are tilting at windmills. Neither the main administration or the ministry are doing anything concrete: they aren't officially challenging our plan, nor are they confirming their own. The atmosphere of uncertainty is making the workers nervous."

A detailed ministry-level discussion became unavoidable. So it was held, with an *Izvestiya* correspondent present.

V. Volynkin was the first to take the floor: "Have the workers in Tyumen complained that the quota is not supported by auxiliary parts shipments? To a certain degree, one can understand their position. The monoblocks—the battery housings—were to have been built by Minneftekhimprom [Ministry of the Petroleum Refining and Petrochemical Industry]. They stopped delivering them, and their culpability has been undeniably proved by the funding notifications and other documents. As for the cell separators, Minkhimprom [Ministry of the Chemical Industry] let us down: having failed to set up in-house production, they had to buy 400,000 square meters of the necessary material abroad, and they even drug their feet getting that done. We have documentary proof of this, too. It looks like the plan was drawn up based on objective data."

"Do you agree, Comrade Korelyakov," asked the deputy minister, "that the quota was set after all the circumstances had been taken into account?"

"Was it really drawn up at all, Yuri Vasilyevich? They set the figure without a word, sent the paperwork down without a word, never sought the opinion of the plant personnel and paid not an iota of attention to any of our inquiries."

"But, if you will allow me," said Yu. Zakharov, his voice rising slightly, "are you actually suggesting that the plan is arrived at by taking a mass local vote? We take the

enterprise's production capacities, manpower resources, its total allocated physical supplies and draw up the plan based on their degree of use and the volumes of materials shipped to them from allied sectors, and we take into consideration the five-year plan figures.... That and that alone is how we arrive at the plant's quota."

"Are you saying that you've taken all the factors into consideration," interjected the director, not yielding, "and that a portion of the battery production—some 200-250 per day—is put, in accordance with production procedures, onto a repeat production order? And that in the summer, during the hot weather, the battery chargers have to be switched off for 5-6 hours? We all know that these measures are necessary, but that every hour lost represents "vanished" output. And production shut-downs because of shortages of cell separators, whose shipments you have solidly guaranteed in writing, no longer last hours and days, but weeks and even decades!"

The discussion occasionally ventured into impossible technical thickets with the director of the scientific-research institute using scientific terminology. The sectorial directors' positions were clear, however. They claim to understand the plant collective's concern, but say that they, too, need to be understood: the sector's plants are in a production decline, their equipment is becoming dilapidated, many enterprises are now located in the centers of cities and have to be relocated, which adds to the expenses and losses. So how can the Tyumen Battery Plant, which is in relatively good shape, not be asked to produce maximum output?

"This is an objective necessity," said the deputy minister. "When our country is being forced to use its currency to buy some three million batteries per year, and when the motor vehicle plant conveyers are in danger of coming to a halt, I am no longer talking about the needs of private automobile owners—no indulgences can be allowed in a situation like this."

But the Siberians were not dreaming of an easy life when they drew up their plan. Having closely studied the new law's articles, they mapped out distinct reference points: to modernize the enterprise, consolidate the experienced personnel and learn to operate smoothly and efficiently. In theory they have been granted independence and maneuverability in manufacturing their output. But...the state order has covered all 100 percent of their production volume, including not only the production of their basic products line, but their production equipment, accessories, tools and consumer goods as well. So much for maneuverability!

"I did not witness the start-up of the conflict," admitted Yu. Zakharov. "But like a curator, I feel kindly toward the Siberians. This plant embodies our hopes, and the ministry is concerned about its being outfitted with up-to-date equipment. Construction of its second phase will begin soon. We need to recognize that shortfalls in

deliveries of accessory elements—caused by Minkhimprom and Minneftekhimprom—have brought the Tyumen workers to a critical pass. This situation has necessitated our appealing to the USSR Council of Ministers and asking them to put pressure on the appropriate ministries. And USSR Gosstab has been asked to recall orders for 200,000 batteries, which will make the plant's situation substantially easier.

The trouble, however, is that the "regulatory" measures discussed by Minelektrotekhprom are not radical, but only temporary half-measures. The Tyumen workers themselves have their own suggestions which, they feel, will end their dependence on the suppliers once and for all. But for them to reach this point, they need real, not "paper", independence.

The talk in the ministry has gone on for over three hours, at times highly charged and at times taking a more peaceful course, and somehow it has happened that no one has recalled the labor collective council's view. It's as if no decisive applications had been sent to Gosarbitrazh or the USSR Procurator's office. It's as if the ministry had also failed to take the gesture seriously. Nor is this by accident.

The Law on State Enterprises (Associations), having been put into force, has brought the initiative of a great many collectives to life. The law's explicit articles have given them the amazing to disagree with overbearing directives if they are contrary to the logic of the labor collective's life and contrary to its will. One such instance is the one being discussed here today. In using the opportunity granted them by the law, the workers of the Tyumen Battery Plant protested the ministry quota which they felt was wrong. They turned for help to those organs which are obliged to reinstitute justice.

But these organs turned out to be unprepared to act under the conditions of the new law. In any case the inquiries to Moscow went unanswered for a long time. Plant representatives traveled the 2,000 km and after great difficulty gained entrance to those departments which are supposed to protect the law, to find their applications and find out whether they were going to be looked into or not.

"Of all the places we turned to, only the Tyumen Oblast Procurator's office gave us unconditional support," I was told at the plant. "After he looked over the circumstances of this affair, Oblast Procurator A. Vosmerik went to his superior, Deputy General Director of the USSR Procurator's Office O. Soroke and asked him to support our demands. But we had in fact written to Moscow to this very office and had seen no results.

"USSR Gosarbitrazh, in the person of Department Chief A. Arifulina, reacted far from immediately, and briefly at that, telling us that rules had not yet been established controlling the procedure for action in unusual situations

like ours and, 'since no legislation in the USSR has yet been established to deal with such a procedure, the Tyumen Battery Plant's application cannot be examined'."

So who, in that case, will come to the defense of the law?

The plant's lawyers turned to the USSR Academy of Sciences' State and Law Institute for consultation. Several experts came to the same conclusion: it is USSR Gosarbitrazh's prerogative and immediate duty to look into the "Battery Plant Affair". From the institute, the plant director received a letter signed by Academician V. Laptev, in which he stated: "The State Board of Arbitration is taking an erroneous position with regard to this question and in not examining the application on recognizing the invalidity of state orders."

The conclusion is obvious. However, what happens now that the applications still haven't gotten the go-ahead?

For now, the northerners' petitions, which are registered for now in the offices in the capital, are still being ignored and the plant continues to operate in accordance with its own plan. The plant made its shipments for January and February by putting itself under a great deal of strain, but managed to fulfill its first-quarter program. Recalling the discussion in Moscow, A. Korelyakov shrugs: "The situation had to be looked into, but I have yet to hear anything radically new. Things are still vague. The ministry is looking into the reports concerning our plant's plan, but will continue to keep its own plan 'in the back of its mind'. It's difficult to say how things will turn out."

We discussed this with the director, who said that if anything concerning "the battery plant affair" changes substantially during the time this article is being prepared for publication, he will call the Izvestia correspondent's office without fail.

He still hasn't called.

12659

#### **Plant Rejects State Orders, Works According to Own Plan**

18200117a Frunze SOVETSKAYA KIRGIZIYA  
in Russian 13 Mar 88 p 2

[Article by B. Berner, chief of the planning and economics division of the Plant for Agricultural Machine Building imeni Frunze, candidate of economic sciences (Frunze): "Why Repeat Mistakes?"]

[Text] The basic direction for the restructuring that has been started in the economy is a changeover of the branches to complete cost accounting, self-support and self-financing.



Under the conditions of the economic reform planning also changes in principle. The existing system for it, as was noted at the June (1987) Plenum of the CPSU Central Committee, has become an impediment to the introduction of economic methods of management. It has hampered the initiative of the labor collectives, leaving them with the role of blind performers of assignments sent down from above. And those who have sent them down—the ministry or department—have not borne any economic responsibility for substantiating these plans, making sure that they correspond to the capabilities of the collective, or providing material and technical resources for them. In a word, the subjective approach has reigned.

The decree of the CPSU Central Committee and the USSR Council of Ministers adopted in July of last year, "On Restructuring Planning and Increasing the Role of the USSR Gosplan Under the New Management Conditions," and the Law on the State Enterprise (Association) that went into effect in January of this year raised a barrier against such a pernicious practice. These documents radically change the system for the formation of plans and expand the boundaries of the independence of the collectives. They receive the right (see Article 10 of the USSR Law) not only to independently develop their own long-range, five-year and current plans, but also to approve them.

When forming the five-year plan one takes into account the control figures, state orders, and direct orders from consumers and material and technical supply agencies. The control figures reflect the social need for the given product and the minimum level of effectiveness of production. They are not directive in nature and should leave space for selecting decisions and partners.

And how was it before? The Gosplan and other economic departments developed control figures, the ministries informed the enterprises of them, and then together they achieved their fulfillment. Party agencies also arranged their work around the control figures. They all applied pressure on the plant so that it would reach higher goals. But this is not always advantageous either to it or to the state. It is known, for example, that our country produces more footwear than the United States but does not have enough good footwear.

In the Ministry of Light Industry it is frequently criticized precisely because of its failure to fulfill directive assignments for volumes of production even though there is no demand for the footwear that is produced. So why increase the supplies of it on the shelves and in the warehouses of stores?

More about the state order. It is established, as a rule, for individual kinds of group products that are especially significant. As the market is saturated and the effectiveness of the new economic mechanism increases there will be a reduction of the composition and volume of state

orders and the enterprises will change over to independent planning of the production of an ever greater proportion of the products. Thus control figures will be replaced by the state order as the most important instrument for planning and the basis for it. But, as was noted above, it should be established for certain kinds of products. What is the situation in reality?

For our Agricultural Machinery Plant imeni Frunze the ministry included in the state order not only press-pickups, but also practically all the other products, including consumer goods, spare parts for press pickups, and so forth. All this exceeds 90 percent of the overall production volume. And if the capacities are intended for producing 9,000 roller press pickups and 5-6 million rubles' worth of consumer goods, the state order was issued for, correspondingly, 11,500 machines and 12.6 million rubles' worth, but the material resources that were allotted amounted to 6.3 million rubles.

The Council of the Labor Collective would not accept such a state order from the ministry and sent back a counterplan which was composed on the basis of the production capacities and the resources that were allotted. We consider it to be fairly difficult but realistic. In January for the first time in many months the plant fulfilled the plan it had adopted with respect to all indicators. The press-pickups and spare parts for them were manufactured and dispatched in excess of the plan and the assignment for cooperative deliveries and consumer goods was covered. The level of January of last year was surpassed on the whole for the production volume by almost 14 percent. And the plan for deliveries was just barely not fulfilled—99.5 percent. The fact that new items for the store were not assimilated promptly and that we did not have proper control over the regularity of their deliveries accounted for this.

One could say that, not having accepted the state order, the agricultural machine builders established an easy plan for themselves and, of course, they fulfilled it. But under the conditions of complete cost accounting there is no point in adopting an "easy" plan. It is necessary to adopt a plan for whose fulfillment the collective will persistently strive. And our plan is not such a small one. As compared to last year it is higher with respect to roller press pickups by 12 percent, consumer goods—17 percent, and profit—by a factor of 1.5.

We have conducted an analysis of the presumed economic results with two variants of the formation of the plan. The first was on the basis of the state order of the ministry and the second on the basis of the plan adopted by the council of the labor collective. Here is the way it turned out.

Since part of the state order was intentionally not backed up by capacities, the fines for delivery shortages for the year amounted to 2.8 million rubles. Moreover, because of underfulfillment of the sales plan we lose 2 million rubles in planned profit. As a result we fail to deposit

into the budget 1.1 million rubles, for the ministry—a half million, and into the plant economic incentive funds instead of 9 million rubles we deposit only 5.8 million. Thus one asks who needs this planning on the basis of an unrealistic state order? And when carrying out a difficult but realistic plan deductions from profit into the budget increase (as compared to what was expected in the first variant) by 400,000 rubles, for the ministry—by 200,000 rubles, and into the plant economic incentive funds—by 1.2 million rubles. In a word, in this case everyone stands to gain—the state, the ministry, and the plant.

There is no doubt that from the results of 1 or 2 months it is still too early to judge the stability of the work of the collective. We understand this. But the first results show that under the conditions of the radical reform the state order is called upon to reflect the real possibilities of production and should be advantageous to the society and to the enterprise. But so far, unfortunately, in this instrument of economic influence and encouragement of effective activity there is still a strong imprint of administrative methods. And life has convincingly shown where these methods lead in the economy. So why repeat yesterday's mistakes?

11772

## REGIONAL DEVELOPMENT

### UkSSR Council of Ministers Assesses State of Republic Economy

18200104 Kiev PRAVDA UKRAINY in Russian  
6 Feb 88 p 1

[Report on meeting: "At the UkSSR Council of Ministers"]

[Excerpts] A meeting of the UkSSR Council of Ministers, which discussed the report of the Presidium of the UkSSR Council of Ministers on the work on guiding the restructuring of national economic management, was held on 4 February. V. A. Masol, member of the Politburo of the Central Committee of the Communist Party of the Ukraine, chairman of the UkSSR Council of Ministers, made a report on this matter.

On the basis of present requirements basic directions in the activity of the republic's government and the new structure of its apparatus were determined. Specific work on improving the organizational structures of administration as applied to the new conditions of management was done. A total of 14 ministries and departments were liquidated, 83 medium-link organizations were abolished, and 1,500 enterprises, shops, and other structural subdivisions were consolidated. The administrative apparatus has already been reduced by almost 80,000 people. The savings of expenditures on its maintenance total 227 million rubles.

With due regard for the need to fundamentally restructure the activity of all sectorial and regional management links the development of the general scheme of managing the republic's national economy is being completed. This makes it possible to significantly simplify and improve the management of corresponding sectors and regions, to eliminate the multiplicity of links and duplication, and to reduce and lower the costs of the administrative apparatus.

The restructuring of the work of republic economic bodies is continuing. The functions of the central apparatus of ministries and departments are being reexamined and a significant number of them are being transferred to subordinate links—directly to enterprises and associations.

The style and methods of activity of the republic's ministries and departments, oblast (city) executive committees, and the government apparatus are being improved. They pay special attention to the implementation of a radical economic reform and to ensuring stable work under the new conditions. More than 2,400 enterprises, associations, and organizations have already changed over to full cost accounting and self-financing. The efforts of managerial links and labor collectives are directed toward a further increase in the efficiency of public production, acceleration of reconstruction and retooling, and overall mechanization and automation of enterprises on the basis of advanced technologies. Two-thirds of the increase in labor productivity was obtained on account of the rise in the technical level of production.

At the same time, there are significant shortcomings in the restructuring of the republic's national economic management. The meeting noted that the Presidium of the UkSSR Council of Ministers should accelerate the adoption of measures, which would ensure an overall and prompt solution of key economic and social problems and a more stable and efficient operation of enterprises and organizations under full cost-accounting and self-financing conditions and would help to eliminate the lag of individual sectors in the fulfillment of planned assignments.

Work on the introduction of economic methods of management is by no means carried out at the proper level everywhere. Ministries and departments have not yet taken the necessary measures to improve the financial status of subordinate enterprises and organizations. Sluggishness is tolerated in the solution of many important restructuring problems.

The UkSSR Council of Ministers defined specific tasks concerning the improvement in the work of the Presidium of the UkSSR Council of Ministers, UkSSR ministries and departments, and oblast (city) executive committees on the guidance of restructuring and demanded that all organizational activity be directed toward accelerating the transfer of associations and enterprises to full

cost-accounting, self-financing, and self-management principles, increasing their independence and undertaking, and maximally utilizing for these purposes the conditions created in connection with putting the USSR Law on the State Enterprise (Association) into effect.

Taking into consideration the strained financial situation of many enterprises and organizations, the need to take urgent measures to improve economic work, to reduce the number of unprofitable and low-profitability production facilities, and to give practical help for improving the financial situation to labor collectives was pointed out to the Presidium of the UkSSR Council of Ministers, UkSSR ministries and departments, and oblast (city) executive committees.

The meeting also discussed the results of fulfillment of the State Plan for the Economic and Social Development of the UkSSR and the UkSSR State Budget for 1987, examined the republic's economic situation, and determined measures to ensure the plan and budget fulfillment in 1988.

In 2 years of the five-year plan the increase in industrial production made up 8.6 percent as compared to 7.1 percent according to the five-year plan. Agriculture is embarking on the path of stable development. The average annual gross output of grain reached 46.6 million tons, which is 18.5 percent more than during the years of the 11th Five-Year Plan.

Average annual rates of increase in capital investments rose to 7.7 percent as compared to 3.1 percent in 1981-1985. The role of intensive factors in the growth of public production intensified. In most national economic sectors the assignments for a rise in labor productivity were overfulfilled.

The line of strengthening the social direction of economic development is implemented consistently. In 2 years of the five-year plan at the expense of all financing sources 41.1 million square meters of the total area of dwelling houses were commissioned. Plans for the construction of schools, hospitals, children's preschool institutions, stores, and workers' restaurants are being fulfilled. The wages of workers, employees, and kolkhoz members and the population's real income increased. The trade turnover of state and cooperative trade expanded.

For the first time in many years the entire rise in production is ensured without an increase in the number of workers engaged in the sectors of the material sphere. Industrial output increased by 3.8 percent, which is more than envisaged according to the plan.

At the same time, the meeting pointed out that in a number of directions in social and economic development it was not possible to attain significant progress. The positive processes taking place in the economy have not yet become stable and have not acquired a large

scale. A number of enterprises do not carry out purposeful work on saving expenditures and eliminating nonproduction expenditures and losses, which does not make it possible to fully mobilize resources for increasing the profit and strengthening the financial situation.

The UkSSR Council of Ministers especially noted that in 1987 enterprises did not operate stably in all national economic sectors. Owing to oversights in organizational and economic activity and the weak preparation of a number of UkSSR ministries and departments, oblast (city) executive committees, associations, and enterprises for work under the new conditions, a slump in production occurred during the first months of last year. Although as a result of the measures taken the situation basically improved by the beginning of the second half a year and industry entered the rhythm of the annual plan, it was not possible to fully make up for the lag tolerated in a number of sectors. Products under contract in the amount of 2.6 billion rubles were underdelivered to consumers. Enterprises in Volyn, Dnepropetrovsk, Donetsk, Zaporozhye, Kiev, Crimean, Odessa, Poltava, and Kharkov oblasts did not cope with the plan for the production of many types of consumer goods. The UkSSR Ministry of Light Industry did not operate satisfactorily. It failed to deliver products worth 133 million rubles.

The agro-industrial complex did not attain the planned volume of agricultural output. Serious shortcomings continued to take place in the organization of the transportation, processing, and storage of agricultural raw materials.

Fundamental changes for the better did not take place in capital construction. The annual plan for the commissioning of fixed capital at the expense of state centralized capital investments and funds of enterprises was fulfilled 87 percent.

The UkSSR Council of Ministers made it incumbent upon UkSSR ministries and departments, oblast executive committees, and Kiev and Sevastopol city executive committees to eliminate existing shortcomings and, following the decisions of the 27th party congress, the June (1987) Plenum of the CPSU Central Committee, the 27th congress of the Communist Party of the Ukraine, and July (1987) and January (1988) Plenums of the Central Committee of the Communist Party of the Ukraine, to implement specific measures to mobilize resources and to ensure stable and dynamic work in all the areas of public production.

The UkSSR Government demanded that managers of UkSSR ministries and departments and of oblast (city) executive committees ensure the introduction of proper order and discipline in production and organize matters



so that the fulfillment of obligations concerning deliveries, improvement in the quality of products, strengthening of the policy of economy, and improvement in the financial situation would be tasks of primary importance in every collective.

Special attention must be paid to the all possible acceleration of scientific and technical progress, maximum utilization of the created production and scientific potential, labor productivity growth, shortening of the periods of mastering commissioned capacities, and increase in the effectiveness of capital investments.

The special importance, during the period of restructuring the economic mechanism, of a more specialized economic training of Soviet and economic personnel and of a further rise in the level of all economic work was pointed out.

It was suggested that the UkSSR Gosagroprom and oblast executive committees intensify organizational work on raising the efficiency of the economic mechanism in the agro-industrial complex and on increasing the production and purchases of agricultural products.

The UkSSR Council of Ministers demanded that ministries, departments, and oblast (city) executive committees place the problems of strengthening the material base of the social and cultural sphere under special control. They were instructed to take effective measures to improve the work of trade enterprises and to draw additional commodity resources into trade turnover. The need to involve all enterprises and associations, regardless of their departmental subordination, in providing paid services for the population, to increase the number of cooperatives significantly, and to expand individual labor activity was stressed.

A. A. Titarenko, member of the Politburo, second secretary of the Central Committee of the Communist Party of the Ukraine, spoke at the meeting of the UkSSR Council of Ministers.

V. A. Sologub, member of the Politburo of the Central Committee of the Communist Party of the Ukraine, chairman of the Ukrainian Trade-Union Council, took part in the meeting.

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## RESOURCE UTILIZATION, SUPPLY

### Encourage Enterprises to Use Secondary Raw Materials

18200113a Moscow *EKONOMICHESKAYA GAZETA* in Russian No 12, Mar 88 p 17

[Article by Candidate of Economic Sciences V. Odess, under the "Resource Conservation" rubric: "Exactly When Will We Begin Using Secondaries?"]

[Text] [Editorial comment: In publishing this article by V. Odess in the form of a discussion, the editorial board invites readers, mainly workers in industrial enterprises and cooperatives, to air their views on ways to use secondary resources more fully and effectively.]

Making maximum use of secondary raw materials comprises a major trend in resource conservation. Measures developed in recent years have increased the amount of waste materials we now reprocess. But unfortunately, they have failed to orient industry to using secondary resources.

### Not Confirmed by Practice

Of all the steps taken so far, sectorial and regional programs for using secondary raw materials have had the best results. Those production methods which had to be mastered in order to meet targets, and production capacities which still need to be developed were pointed out in the programs.

This has turned out to be an effective approach. For example, industrial waste paper use has increased from 64.4 to 72.4 percent since 1981, broken glass use from 60 to 65 percent and from 5 to 36 percent of the secondary polymers produced are now recycled. The trend toward increased recycling is holding steady.

However, the figures cited above also show that we are still far from using 100 percent of our secondary resources. They also show the types of secondary resources which are being used most successfully. The absolute majority of waste products are used to a miserly degree, and many are simply not being produced like they used to be. This effort is being hindered, and not least by the lag in the scientific and material-technical base for using wastes.

Industrial science, unfortunately, has still shown itself to be incapable of proposing effective methods for reprocessing many types of wastes (primarily by continuing to show no interest in finding such methods). The spread of the notion that using secondary resources is sharply increasing thanks to industry's transition to new economic operating conditions (that the enterprises themselves will be interested in inexpensive raw materials, i.e., wastes), has yet to be confirmed by practice.

USSR Minneftkhiprom [Ministry of the Petroleum Refining and Petrochemical Industry], which is operating under the new economic system, is not meeting its targets for reprocessing worn-out tires and rubber waste products, and USSR Minlegprom [Ministry of Light Industry] is in the same position with regard to reprocessing secondary leather materials.

This is going on because industry continues to think of primary resources as its basic resources. Industry still perceives secondary resources as symbolizing that which is "second-rate", and as something to be used only when there are insufficient primary raw materials.

Centralized waste recovery planning is even now being maintained in slightly altered form, and would have to be supported by a complex of economic and legal measures. Prior to now we have been limited only by material incentives to recycle wastes, incentives which have turned out to be ineffective and of little success.

Using secondary resources has its own specific character, which we must not fail to take into account. If we need to economize on primary resources as much as possible, then conversely we need to use secondary resources as much as possible in production.

It should also be remembered that a specific enterprise often fails to feel the considerable effect which the national economy as a whole derives from using secondary raw materials. It is primarily the enterprise which should be concerned about the high cost of preparing wastes for reprocessing and the cost of restructuring the production process.

Co-workers at USSR Gosnab and the All-Union Scientific-Research Institute for Resource Conservation (VNIIR) have made calculations to determine the effectiveness of using worn-out tires to produce reclaimed rubber, rather than using raw rubber. By itself, the economic effect was negligible. However, when the cost to produce rubber from primary raw materials were put into the calculation, then the advantage of using recapped tires was obvious.

This example reconfirms the need for an integral economic mechanism which would, based on national economic interests, direct industry toward priority utilization of secondary resources.

#### Traded Market-Style

Unfortunately, the economic mechanism "is working" on primary resources at present as well.

Take prices for example. It is generally agreed that waste products cost less than primary raw materials. But this is far from always being the case. The effective prices for interchangeable types of resources cause enterprises to purchase primary raw materials. When manufacturing glass containers, priority is not given to cullet, but to soda ash, since it is simply cheaper, even though most of it is imported.

The situation with the raw materials used in cellulose and paper production is the same. The primary raw material—industrial-use wood—costs less than the wood wastes used to produce the same chips.

We are not calling for mandatory price reductions on secondary resources. In the final analysis primary resources, too, can be made less expensively wherever

this is justified. But it is very important that the difference in the prices be perceptible. The method for setting prices on waste products was approved three years ago, but has yet to be used.

Beginning in 1988, an automated secondary resources data bank will be activated for the first time in this country. It was compiled through a registration of waste products which was conducted by USSR Gosnab territorial organs. The catalogs list over 5,000 types of waste products. USSR Gosnab organs will continue to keep account of them. But waste product use can be properly regulated only by keeping statistical accounts. In spite of these decisions, Goskomstat [State Committee on Statistics] and the USSR Ministry of Finances have not found a plausible pretext for inserting the necessary refinements into the statistical reporting forms to protect enterprises from excessive scribbling. This has resulted in a lack of accurate information. How are we supposed to organize full use of secondary resources without this information?

Generally speaking, when it's a matter of information on secondary raw materials, the departments cite the need to cut down on "scribbling". So USSR Gosstandart, under the same pretext, also refuses to insert a section into the scientific and technical documentation (GOST [All-Union State Standards], OST [All-Union Standards] and TU [Technical Specifications]), which would point out the manufacturing potential of using articles which have outlived their service life.

The existing standards for using secondary raw materials have not been made into a real basis for planning and analyzing their processing. The sectors are in the process of developing norms. They want to lower them "just to be on the safe side". However, some reproach is due the All-Union Institute of Resource Conservation, which has been unable to develop an improved method for establishing norms. As a result, the process by which enterprises and USSR Gosnab's territorial organs agree on norms has at times been accompanied with arguments which sound like market haggling. Neither those representing the enterprises nor the employees of the supply organs have had substantive exchanges in defense of their viewpoints.

Right now, the norms are being more precisely defined in compliance with government directives. This measure will be in place by the end of the year.

#### Cheaper to Toss Them Out

Now we will take a look at the industrial enterprise. Here we have a situation which is ideal for freely hauling wastes off to the dump. In accordance with established procedures, the cost of any wastes considered by a given facility to be unrecoverable are added to the cost of the finished products. Let's add it up: the waste products are hauled out to the dump at minimal cost. In Moscow, an enterprise pays a waste-hauling vehicle anywhere from a

few kopecks to R1.5 and in Voronezh they pay an average of R3. But the tariffs for hauling wastes by rail, on the other hand, are inordinately high compared to the low price of the load itself. Inexpensive metallurgical slags, overburden rocks and thermal electric power station ash become noticeably more expensive after having been hauled and less usable compared to local non-valuable building materials. And just try to procure rail cars to haul secondary raw materials!

There are also flaws in the use of secondary raw materials stemming from the absence of comprehensive legal regulation of the processes by which they are collected, reprocessed and supplied. These levers have been more or less deregulated with regard to the so-called traditional types of raw materials (waste paper, secondary refractory materials, petroleum products etc.), i.e., secondary raw materials which are handled by special-purpose organizations. For the remaining types of waste materials, such acts are either nonexistent, or are incomplete and at times inconsistent.

In particular, no solution has been found to the primary problem of who in the country is responsible for using various types of wastes, and how responsible are the officials for collecting and reprocessing them. There exists no unified legal regulation for supplying all forms of secondary resources. Even though bosses everywhere in the world are responsible for collecting and preparing wastes for use.

The most graphic example of the negative results of the absence of this legal regulation is the accumulations of

huge thermal electric power station ash wastes in huge areas, which essentially takes them out of national economic circulation.

Since time immemorial it has been widely known that TES [Thermal Electric Power Station] ash is a valuable waste for many sectors of the economy. However, over the past five years, use of this material has increased by only 3.2 percent and this is only 12.6 percent of the total volume used. There are over a billion tons of ash lying about at thermal electric power stations. Shipping and refining them are not among the duties of TES collectives. And they are reluctant to take excessive cares upon themselves.

And so USSR Minenergo [Ministry of Power and Electrification] is seeking authorization to make revenues from sales of ash wastes part of material development funds, even if the wastes are removed from dumps with no participation from the enterprises making up this ministry. What is the reason behind this?

I feel that all the questions associated with using secondary resources, i.e., economic, legal and even organizational questions and questions related to environmental protection need to be consolidated in a legislative act. This will compel the ministries and enterprises to address the issue of secondary resources, and will make it possible to turn the economic mechanism into a genuine obstacle to excessive expenditures.

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## LIVESTOCK AND FEED PROCUREMENT

**Pricing System for Meat Sector Discussed**  
18240054 Moscow MYASNAYA INDUSTRIYA in  
Russian No 11, Nov 87 pp 8-11

[Article by S. S. Shnitser, doctor of economic sciences, professor, All-Union Scientific Research \* 1 Design Institute of the Meat Industry: "On Constructing Prices of Products of the Meat Subcomplex at the Agro-Industrial Complex"]

[Text] The decisions of the June (1987) Plenum of the CPSU Central Committee indicate that a radical reform in price formation is the most important component of the restructuring of economic management. For this it is necessary to carry out not a partial improvement in the price system, but a radical reform in price formation and the restructuring of the entire price "economy"—wholesale, purchase, and retail prices and rates.

This proposition also fully applies to the meat subcomplex at the agro-industrial complex. The existing price formation system does not meet the requirements for strengthening agro-industrial integration, intensifying economic methods of management, and introducing cost accounting and self-financing.

Throughout the last decades purchase prices of livestock rose repeatedly. However, even now they do not always reflect socially necessary expenditures on raising and fattening animals.

To ensure a stable profit and strengthen the cost accounting of meat industry enterprises, even during the years of the first five-year plan livestock was accepted from farms at accounting prices set on the basis of purchase prices. Deviations between purchase and accounting prices, which occurred during the acceptance of individual batches of livestock, were regulated in a centralized manner and, ultimately, were liquidated mutually.

Lists of wholesale meat prices were established on the basis of purchase prices and the difference between wholesale and retail prices (less rebates to producers' supply and trade agencies) entered the state budget in the form of the turnover tax.

During the postwar period, owing to the rise in purchase prices of livestock, the meat industry became unprofitable. It was necessary to change the method of setting accounting prices. They began to be determined on the basis of retail meat prices less profit and costs of production and sale of products. As a result, the difference in the levels of purchase and accounting prices of livestock increased significantly, exceeding 25 billion rubles at present.

In 1957 lists of wholesale meat prices were abolished. Sales began to be made at retail prices less rebates to producers' supply and trade agencies.

Current retail prices of meat and meat products (for three price zones) were set in 1965 on the basis of previously existing prices through their arbitrary increase. When selling products to organizations located in zones with higher prices, enterprises receive the interzone difference. Meat and other types of raw materials for industrial processing are released at prices of the first zone (less rebates to trade and producers' supply agencies), which increases the profit of enterprises located in second and third zones owing to the interzone difference for finished products.

During the past 20 years costs of production and sale of products increased considerably. As a result, the correspondence between production costs and retail prices was disrupted. A big diversity in the levels of profitability of various products arose. For the purpose of ensuring production profitability, with constant current retail prices systematic measures were taken for a hidden rise in prices through the output of so-called "new" types of meat products, which differed little from traditional products and for which higher prices were set, and through an artificial reduction in prices of raw materials.

During the last decades the profitability of the meat sector increased appreciably in connection with the extensive use of protein additives in the production of meat products with constant prices of finished products. For the purpose of lowering the sector's profitability level, retail price discounts for highly profitable products and price markups for unprofitable products were introduced in 1984. The difference between discounts and markups was transferred to the state budget. The practice of application of discounts and markups did not justify itself. The diversity in profitability levels persisted, a number of profitable products became unprofitable, and, moreover, the technique of calculating discounts and markups became complicated.

When prices were determined, customers' demand and the quality of products were not taken into account sufficiently. It cannot be considered normal that fat hogs and fat pork are much more expensive than meat pork, even though protein is a more valuable meat component than fat. It is also necessary to revise the ratio of prices of different meat types and categories. In particular, there is no basis for setting the prices of poultry meat higher than those of pork.

Uniform wholesale prices were set for feed, technical, and special products. A low level, owing to which enterprises are not sufficiently interested in the fullest and most efficient utilization of incidental products of slaughtering (hides, production waste, and so forth), is their distinctive capacity. With the low levels of these products meat production costs rise respectively.

Thus, we will enumerate the basic shortcomings of the existing price formation system:

prices of livestock and meat products do not reflect socially necessary expenditures;

the profitability level of individual types of products sharply differs from the average level in industry, which prompts enterprises to remove low-profitability and unprofitable products from production and to expand the output of so-called "new" types of products;

the ratio of prices of various meat products does not fully take into account the differences in food value and quality;

the ratio of prices of meat and incidental products is not substantiated sufficiently.

In accordance with the decisions of the June (1987) Plenum of the CPSU Central Committee an overall restructuring of the price formation mechanism ensuring an organic connection among wholesale, purchase, and retail prices should be carried out in the very near future. New prices must consistently reflect socially necessary expenditures on the production and sale of products, their consumer properties and quality, and the level of effective demand. New prices should stimulate an acceleration of scientific and technical progress, resource saving, reduction in unjustified redistribution processes and subsidies, and creation of substantiated conditions for the transition to cost accounting and self-financing.

When working out new prices, it is necessary to take into account sectorial characteristics.

The author examines a number of methodological price formation problems, which should be taken into account when prices of products produced by the meat subcomplex at the agro-industrial complex are revised.

Purchase prices of livestock should be initial for the construction of meat prices. Prices should be the same in every oblast, kray, autonomous republic, and Union republic without an oblast division. If there are sharply defined zones in a region, it is advisable to set zonal purchase prices.

Purchase prices should be set per quintal of the live weight of livestock and per quintal of meat obtained after slaughtering.

Settlements for livestock delivered to procurement organizations should be made according to the quantity and quality of meat. At the same time, agroproms of a specific region should grant individual farms, which deliver livestock for transportation outside the boundaries of the raw material zone and for fattening, or are located at a big distance from the meat combine, the right to settle accounts at prices of the live weight.

Purchase prices should be based on normative calculations made according to progressive norms and current prices of materials, power, and fuel (with due regard for price change coefficients) for the predominant types of farms. Purchase prices are set by summing up full production costs per quintal of the live weight of livestock and profit calculated according to norms uniform for all farms.

When determining the profit for farms for exceeding the volume of deliveries of livestock as compared with the preceding 5-year period, as well as for heavy young cattle, additional payments should not be included in the price, because they are not compensated during the sale of finished products. This would contradict cost-accounting principles.

When it is necessary to provide incentives for farms for increasing deliveries of livestock as compared with the preceding period and of heavy young stock, additional payments should be considered a state bonus and it should be paid from state budget funds.

When determining the ratios of prices of various livestock types and categories, it is necessary to take into account the differences in the use value of finished products. For example, the difference in prices of cattle with average and below-average degrees of fatness and first- and second-category meat should be determined with due regard for the differences in these types of livestock and meat and prices of meat hogs and meat pork should be higher than those of fat pork and prices of poultry, lower than those of beef and pork.

In cases of unprofitability or insufficient profitability of individual farms superior bodies (RAPO and oblagroproms) should allocate the funds necessary for them from centralized resources. Purchase price discounts and markups for individual farms should be abolished.

Farms forming part of agro-industrial associations (combines and so forth), which distribute the profit obtained during the sale of finished products among APK partners according to their contribution to common results, should transfer livestock to meat combines at accounting prices set on the basis of socially necessary expenditures without the inclusion of profit.

A full correspondence of qualitative requirements for slaughter animals and meat is a necessary condition for ensuring unity in the work of APK partners. Only in this case, when raising high-quality livestock, will farms obtain a higher profit from the sale of meat. This requirement is not taken into account in the new cattle standard. Its basic shortcoming lies in the fact that livestock is divided according to sex, age, and degree of fatness and young cattle, into five groups according to the weight of animals, whereas beef is subdivided, as before, into two categories. As a result, a lack of coordination in the economic interests of kolkhozes and sovkhoses, on the one hand, and of meat combines, on the

other, is inevitable. Owing to these differences, a true economic integration of the meat industry and livestock farms and the distribution of the final profit among APK partners are impossible.

It is advisable to divide both cattle and beef into three groups, that is, highest, first, and second categories. At the same time, second-category beef should be branded with the letter K and assigned only for industrial processing. Beef of the highest category should be produced only in prepacked form and in the form of natural semifinished products. This will make it possible to eliminate abuses in trade.

Similar changes should be made in small cattle and mutton standards.

With the unity of qualitative indicators of livestock and meat it will be possible to accept livestock for slaughtering at purchase prices and to give up accounting prices. If, however, the differences in the indicators of livestock and meat standards are retained, it will be necessary to retain the system of accounting prices.

Fixed wholesale prices (price lists) uniform for an oblast, a kray, an autonomous republic, and a Union republic without an oblast division should be set for meat and meat products.

Wholesale prices are formed from normative production costs calculated according to progressive norms for enterprises of the predominant type and from current prices of material resources (with due regard for change coefficients) with an addition of the normative profit.

Production costs should be computed in accordance with the calculation instruction in effect. It should be noted that the instruction in effect does not fully meet present requirements. It should envisage a fuller accounting of expenditures (for example, on the reproduction of manpower) and the introduction of the normative method of calculating meat production costs.

When determining normative profitability, it is necessary to establish a single percent for all types of products, allowing as an exception a higher profitability level for individual—the scarcest—products.

The existing method of determining profit in percent of production costs should be considered obsolete. This method stimulates the use of expensive materials and stress on the production volume, rather than quality. Apparently, it is most advisable to determine the profit in relation to costs less material expenditures.

The total amount of profit should be established with due regard for the need to form funds for economic incentives and development of production, science, technology, and reserves. In cases of unprofitableness or a

shortage of profit at individual enterprises, when necessary, superior organizations should allocate deficient resources from centralized funds. Wholesale price discounts (markups) should not be established for individual enterprises.

Wholesale prices of hides, edible fat, grease, finished intestinal products, endocrine-enzyme raw materials, medical preparations, albumin, animal feed, and other technical products should be uniform throughout the country. When revising prices, it is necessary to uncover the possibility of raising them for the purpose of increasing the interest of enterprises in the fullest collection and efficient processing of raw materials and reducing meat production costs. For this purpose it is necessary to revise the ratios of prices of meat and incidental products (hides with artificial leather, meat-bone meal with fish feed, animal fat with vegetable fat, and so forth).

Retail prices of meat products (uniform for an oblast, kray, ASSR, and Union republic without an oblast division) should be set on the basis of wholesale prices with due regard for expenses on transportation, thermal processing, and storage in distributive refrigerators. To cover expenditures on the sale of output, it is advisable to introduce markups per unit of output.

In cases when it is considered advisable to set retail prices of specific types of products higher or lower than wholesale prices, the difference between them should be compensated from the state budget.

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## TILLING, CROPPING TECHNOLOGY

### Board Head Discusses Agro-Chemical Service, Commentary

#### Plant Protection Measures Reviewed

18240029a Moscow ZASHCHITA RASTENIY in Russian No 4, Apr 87 pp 2-6

[Article by I.K. Ryabchenko, chief of the Plant Protection Administration of RSFSR Gosagroprom: "Raising Responsibility, Improving Operations"]

[Text] The April Plenum and the 27th Party Congress opened up the path leading to an objective and critical analysis of the situation prevailing in society and they handed down historic decisions considered to be important with regard to the country's destiny. We have irrevocably commenced restructuring and have taken the initial steps along this path. Great changes are taking place in the life of Soviet society and positive trends are increasing in their intensity. In speaking before the January Plenum of the CPSU Central Committee, M.S.



Gorbachev stated that in addition to requiring restructuring at all levels, each one of us must begin restructuring ourselves. All must perform in accordance with the new conditions — energetically, creatively and conscientiously: workers, kolkhoz members, intelligentsia. All are included — from a labor collective to the CPSU Central Committee and the government.

Last year the workers attached to the agro-industrial complex of the Russian Federation achieved definite successes. The protectors of plants made their own contribution. According to data supplied by VNIIZR [All-Union Scientific Research Institute of Plant Protection], the value of the crops protected against pests, diseases and weeds amounted to 5.1 billion rubles, against expenditures of 1.1 billion rubles. In all, 89.2 million hectares were treated against harmful objects last year throughout the republic, including 36.8 million hectares against pests, 14.5 against diseases and 37.9 million hectares against weeds. Roughly 15.5 million tons of seed were disinfected, including 3 million tons using film-forming preparations.

The biological protection of plants is undergoing further development. In 1986, 7.3 million hectares were protected in the RSFSR using biological means. The fact that greater volumes of biological means were employed last year provides no basis for complacency. Thus, in 1986, in the Russian Federation, bacterodendence was employed on 2.9 million hectares against mice-like rodents, while at the same time the chemical preparations zinc phosphide and glyptor were used on 0.8 million hectares. In Krasnodar Kray, pesticides were used on 674,000 hectares (40 percent of the overall volume) for combating mice-like rodents. In the Adygey Autonomous Oblast, the chemical method was employed for carrying out one half of all of the work against mice-like rodents. In Rostov Oblast — 42, Stavropol Kray — 30 and in the Karachayevo-Cherkessk Autonomous Oblast — even 74 percent! By no means can such extensive use of pesticides for combating rodents be justified.

Meanwhile, there are many regions throughout the republic where the campaign against rodents is being carried out using only the biological method — Bashkir, Kabardino-Balkarsk, Tatar and Chuvash ASSR's and in Ulyanovsk, Kuybyshev, Belgorod, Voronezh and other oblasts. This then is the standard to be followed in 1987!

The extremely passive attitude being displayed towards the use of industrially produced biological preparations is arousing special concern. The past year revealed their high effectiveness for combating leaf-chewing pests and the Colorado potato beetle. At the same time, the volumes for their use remain at the level of 1.2 million hectares. What is the reason for this? The principal reason — the role played by the chief agronomists as production technologists in planning and introducing biological protection for plants is not clear. In many instances they shift this work over to the heads of

biological laboratories. It is sufficient to state that a large quantity of preparations has accumulated in Krasnodar Kray and in Ryazan, Volgograd, Kurgansk, Irkutsk and other oblasts. A bad feature also is the fact that when developing a protective technology for a particular crop, no provision is made for the priority use of microbiological preparations, but rather use is made mainly of pesticides. For example, let us take Bryansk Oblast. Here, in 1986, chemical preparations were employed for treating 277,000 hectares against the Colorado potato beetle and bitoxybacillin — only on 11,000 hectares (4 percent). In Kaluga Oblast the figures were 51,000 and 300, Moscow — 130,000 and 800 and in Volgograd Oblast — 39,000 and 1,500 hectares.

Mention must be made of the organization of biological protection of plants on protected ground. Many examples could be cited showing how the use of biological agents in hothouses is increasing with each passing year, with the proportion of such use reaching 80 percent and more. A positive evaluation in solving this problem has been earned in Sverdlovsk Oblast and the Chuvash ASSR and an unsatisfactory one — in Novosibirsk, Kurgan and Moscow oblasts and in hothouse combines in the north Caucasus.

It bears mentioning that the volumes of work carried out in the chemical campaign waged against pests throughout the republic over the past 10 years have increased by almost twofold. This is associated first of all with the introduction of intensive technologies for the cultivation of grain and other crops. In many instances, attempts are still being made to solve the problem of combating pests, diseases and weeds using only pesticides.

In the carrying out of protective work, the majority of farms are not guided by the economic thresholds for the amount of harm that can be inflicted. In some instances, this leads to the unjustified use of chemical agents and in others — to reductions in yields for failure to carry out the necessary treatments. Thus, in the spring of 1986, mice-like rodents were in a state of depression in almost all areas and yet on some farms in Voronezh, Belgorod, Kursk and Tambov oblasts and Krasnodar Kray treatments were carried out against them on an area that was 8.5 times greater than that actually needed. The campaign against the leaf beetle was carried out in considerable volumes in Stavropol and Krasnodar krais (greater by a factor of 3-5 than the volumes actually required). At some kolkhozes and sovkhozes in Vyselkovskiy, Severkiy and Primorsko-Akhtarskiy rayons in Krasnodar Kray, 4-6 sprayings were carried out against this pest and this was completely unacceptable. An unjustified increase in the number of treatments carried out against the Colorado potato bug was noted in Moscow, Bryansk and Ryazan oblasts and in the Chuvash ASSR, where spraying was carried out (in a number of instances repeatedly) on fields on which the numbers of the pest were very limited.

At the same time, the protective measures carried out on seed plant sowings for perennial grasses were clearly inadequate. According to data supplied by the All-Union Scientific Research Institute for Feed, the seed losses caused by pests amounted to 30 percent on a number of farms. However, protective measures are not being carried out on seed plants in Moscow, Orel or Ryazan oblasts and in Ivanovo, Kaluga, Tula, Kostroma and other oblasts this work is not being carried out in full volume. In conformity with the zonal systems, protective measures in orchards should be carried out on 5.3 million hectares and yet such treatments were carried out on only 2.8 million hectares.

As is known, chemical disinfection is a mandatory means for the pre-sowing preparation of seed. It makes it possible to conserve an average of 0.5-1.2 quintals of grain per hectare and on sowings cultivated using an intensive technology — from 1.5 to 4 quintals per hectare. How is this chemical disinfection carried out? Judging on the basis of reports, the plan is being fulfilled annually. But actually, proper order has been established only in certain regions — Lipetsk and Voronezh oblasts, Krasnodar Kray and some others. For the most part, the seed is being disinfected in an unsatisfactory manner. Thus the Orenburg Plant Protection Station reported that 758,000 tons of seed had been chemically disinfected, when the amount of chemical disinfectants consumed indicated that, in accordance with the minimal norms, only 585,000 tons could have been treated. Hence, either 170,000 tons were not treated whatsoever, or they were disinfected using preparation norms which were lowered by a factor of 1.3. This is also borne out by KTL analysis. Almost one third of the samples analyzed exhibited deviations slanted towards a lowering of the norm by more than 28 percent and 14 percent of these samples — more than 60 percent. And an examination of the preparations reveals a very unattractive picture: in the case of vitavax, 88 percent of the disinfected seed did not conform to the norms and for fundazol — 86 percent. What is happening? We purchase costly preparations and thereafter we tend to neglect the work entirely! It must be made patently clear that the norm for the expenditure of disinfectants must not be lowered, especially systemic preparations, since this results in the development of resistance in a number of the causative agents of the diseases and does not produce the desired results.

Everything stated above applies to the Altay Kray. According to a report, disinfecting work was carried out on 665,000 tons, or 89 percent of the seed sown and 95 percent of the plan. Actually, based upon the amount of preparation consumed, only 420,000 tons of seed, or 63 percent of the reported amount, could have been disinfected throughout the kray. The KTL has noted that the quality of the disinfecting work has deteriorated even compared to that of 1985. More than 42 percent of the samples checked contained deviations from the assigned norm in excess of 20 percent. At the same time, a station report indicated that the consumption of preparation per

ton of seed amounted to 1.6 kilograms. Nor was any improvement noted throughout the kray in the disinfecting of seed in behalf of the 1987 harvest. The plant protection station rejected the supplies of preparations for the 1st and 2d quarters, stating that their action was based upon the availability of residue amounts that had not been taken into account. The question then arises as to why they were not taken into account, since who knows how much is available if no accounting is carried out.

Such is the situation in Volgograd, Kurgan, Omsk and Tyumen oblasts, in the Tatar and Bashkir ASSR's and in Krasnoyarsk Kray. This list could be continued. Is it not time to restore order in the matter of preparations and in the observance of technologies, especially the intensive technologies? Up until now, the disinfecting work has been carried out in a number of oblasts, krays and autonomous republics using the dry method, without moisture. In Amur Oblast, this method was employed for disinfecting 35 percent of the seed and in Krasnoyarsk Kray — 30 percent. Dry disinfectants have also been used in Moscow, Kemerovo, Omsk, Novosibirsk and Chita oblasts.

Meanwhile, in accordance with a decision handed down on 10 June 1986 by the associations of the Board of RSFSR Minzdrav [Ministry of Health], RSFSR Gosagroprom and the republic's trade union committee for agroprom workers, the treatment of seed using the dry disinfectant method or the waterproofing method involving the use of organic solvents is forbidden.

Over the past few years, extensive use has been made of the method of disinfecting seed using film-forming substances. During a period of 5 years, the volume of this work increased from 54,000 tons to 3 million tons of seed. This progressive technology is being introduced into operations in an especially fine manner in Vladimir, Gorkiy, Kirov, Voronezh, Volgograd, Omsk and Chelyabinsk oblasts, in the Bashkir and Tatar ASSR's and many others. However, there are some who have not evaluated the advantages of this method and thus are continuing to employ the old method. Very little seed has been treated with adhering materials in Bryansk, Kalinin, Moscow, Ryazan, Smolensk, Tula or Lipetsk oblasts or in the Mordovian or Udmurt ASSR's. The Krasnoyarsk Plant Protection Station issued a batch of the NaKMTs film-forming material to an experimental station and thereafter displayed no interest in whether or not the preparation was used. At the same time, complaints are being received regarding the poor adhesion quality of the systemic disinfectants and the drop in their effectiveness. This also holds true in the Altay Kray: although film-forming material for 16,000 tons of seed were allocated, only 100 tons were actually treated. The impression has been created that these stations simply do not wish to introduce progressive methods into operations.

The intensive technologies require a great amount of attention from the protectors of plants. Indeed, the fate of a harvest is dependent upon the campaign waged against harmful elements in grain crops. The following example allows one to make a judgment concerning the results realized from the plant protection provided by intensive technologies. In 1986, at the Rassvet Kolkhoz in Aninskiy Rayon in Voronezh Oblast, 37.9 quintals of winter wheat per hectare were obtained from intensive fields and only 25.9 quintals per hectare from the usual fields. In the first instance, the expenditures for protecting the plants amounted to 10.03 rubles per hectare and in the second — 0.90 rubles per hectare (limited merely to disinfecting work), or 3.8 and 0.5 quintals per hectare respectively were protected against losses. The net income from these plant protection measures was 29.02 and 3.65 rubles per hectare.

With an expansion in the grain crop areas on which the intensive technology was employed throughout the republic, a considerable increase took place in the volumes of work directed towards treating these crops against diseases. This was new work for a majority of the oblasts and autonomous republics. Nor was proper attention given to this work in all areas. For example, in 1986, in Omsk Oblast, 346,000 hectares were treated against septoria spot and other grain crop diseases, in Novosibirsk Oblast — 112,000 hectares and in Tyumen Oblast and Krasnoyarsk Kray — 46,000 hectares. But if the stations had been prepared in advance for carrying out these measures, the work volumes would have been considerably greater, since the need for such work was valid. In the Altay Kray, the intensive technology was used on 1.2 million hectares and fungicides only on 60,000 hectares. Throughout the entire season, specialists attached to the plant protection service proved that it was not necessary to combat the diseases, but in the kray station's annual report examples were cited showing that one treatment with systemic preparations alone conserved 2.5 quintals of grain per hectare and following two treatments — approximately 11 quintals of grain. These are very impressive figures. But the station's leaders were not influenced: the plans for 1987 called for the grain crops to be treated against diseases on only 100,000 hectares.

The Altay Kray plant protection station must change radically its attitude towards the protection of grain crops cultivated using the intensive technology.

In a number of oblasts there are thoughts of another type: "Once the intensive technology is used, it then becomes necessary to employ fungicides regardless of whether or not diseases are present."

Fine work was performed last year by plant protection personnel in Penza and Ulyanovsk oblasts, where 190,000 hectares were treated with fungicides for preventive purposes, an amount that was greater by a factor of 3-4 than the required volumes. It was stated in the recommendations that treatments were to be started

upon the appearance of the first signs of a disease. This rule must be adhered to! Preventive treatments for grain crops are recommended only for winter crops — during the autumn and for combating snow mould. This work is mandatory for farms in the non-chernozem zone and here only fundazol should be used for this purpose.

I would like to mention the fine work being carried out in Kalinin, Orel, Kirov, Ryazan and Tula oblasts and in the Bashkir, Tatar and Chuvash ASSR's in connection with protecting wheat against snow mould.

The grain crop areas under cultivation using the intensive technology will be expanded in the future. Thus a clear policy must be developed for planning and carrying out special operations and optimum schedules must be established for the use of pesticides depending upon the development of the pests and diseases, the plant phases, the waiting periods and so forth.

Measures for combating late potato blight were for the most part carried out in a timely manner, while taking into account the prevailing phytosanitary situation. The campaign against diseases was well organized in Bryansk, Moscow, Orel, Ryazan, Sakhalin and Kamchatka oblasts and in the Tatar ASSR. However, the measures were not carried out in sufficient volumes in a number of oblasts. In the non-chernozem zone, it was necessary to carry out 3-4 treatments and yet the sowings in Kalinin Oblast and the Udmurt ASSR were sprayed 1.6 times, Smolensk Oblast — 1.5, Pskov Oblast — 1.4 and in Perm Oblast — only once. On farms in the Urals and Siberia, potatoes were treated against diseases on the average of only 0.7 times. All of this, as a rule, led to severe contamination of the tubers.

The problem concerned with combating weeds is far from being solved. Last year, 96.4 million hectares of fields were inspected for weediness. Practically all of the crops were contaminated by weeds, including to an average strong degree of 53 percent. The situation was especially alarming in the non-chernozem zone and also in a number of regions in Siberia (Kemerovo, Tomsk and Chita oblasts).

The numbers of harmful weeds such as Canadian thistle, couch grass, wild oats and others are not decreasing. High levels of weediness are being noted primarily on those farms where the technology for the cultivation of agricultural crops is being violated, where the crop rotation plans are not being observed and where a reduced amount of attention is being given to the working of fallow fields, the cleaning of seed and the preparation and correct use of fertilizer. All of this is bringing about an increase in the use of herbicides, a use that is not always justified.

In 1986, herbicides were used on 38.2 million hectares, including on 25 million hectares of grain crops. The campaign against weeds was organized very well in Moscow, Kalinin and Gorkiy oblasts and in the Chuvash



ASSR, where considerable areas were treated during the autumn with simazin and sodium trichloroacetate. During the spring period, improvements were realized in the work carried out with herbicides of the 2,4-D group in Chelyabinsk, Orenburg and Novosibirsk oblasts, where 95 percent of the grain crops were sprayed prior to the stem extension stage. In Smolensk Oblast, a more active campaign was waged against weeds in flax sowings. Triallat, 2M-4X, glin, tuligen and bazagran were used here in 1986. It bears mentioning that more efficient use was made of herbicides, than earlier was the case, on plantings of grain crops under cultivation using the intensive method. Thus recommendations were developed in Lipetsk and Orenburg oblasts for applying mixtures, with minimal norms for the preparations being selected. This made it possible to treat larger areas during the growing season. At the same time, a great amount of work remains to be carried out in order to ensure that the campaign against weeds is organized in a planned rather than a spontaneous manner and that it is based upon the observance of scientifically sound farming systems. As yet, insufficient attention is being given to applying soil herbicides in behalf of spring grain crops and particularly in the regions of Siberia (Altay Kray, Omsk Oblast). The campaign against wild oats must become a necessary element of the protective measures carried out on intensive sowings. An analysis of the data being received has shown that the schedules for the use of herbicides on grain crops are not being observed in Stavropol and the Altay krais or in Kursk, Rostov, Kuybyshev, Orenburg and Omsk oblasts and that the treatments are being carried out during the stem extension stage, when the optimum periods have already elapsed.

Mention must necessarily be made of the violations of the regulations governing the use of pesticides. Such violations are resulting in the accumulation of excessive residual amounts of the preparations in the products and at times in the destruction of the crops and contamination of the environment. Thus, onions perished at the Leninskiy Put Kolkhoz in the Kabardino-Balkar ASSR and potato growth was inhibited at the Kolkhoz imeni Lenin owing to the presence in the soil of an excessively high level of simazin.

Residual amounts of pesticides which were higher than the MDU [maximum permissible level] were uncovered on a number of farms in Novosibirsk, Chelyabinsk, Gorkiy, Irkutsk, Bryansk and other oblasts. This was caused by violations of the treatment schedules, raised dosages and violations of the chemical treatment technology. At the Volochayevskiy Sovkhoz in Khabarovsk Kray, a crude violation of the technology for carrying out airborne-chemical operations was tolerated during the spraying of grain crops and, as a result, cabbage plantings which were located nearby were subjected to the effects of the preparation. Incidents involving violations of the regulations for using pesticides are occurring in each oblast, kray and autonomous republic and thus the

specialists attached to the plant protection service must utilize the rights of state inspectors in a more decisive manner and institute proceedings against those who commit such violations.

Permit me to direct attention to the task of protecting pesticides and their quality. At kolkhozes, sovkhozes and associations of Agropromkhiya, as revealed by inspection results, serious shortcomings have been uncovered in the storage of pesticides. Unjustified requisitions and mismanagement in the use of pesticides have resulted in the accumulation of large supplies of these materials at farm storehouses and supply bases. Preparations which are stored longer than the established guarantee periods in suitable facilities lose their qualities and become worthless. In the Udmurt ASSR, considerable quantities of the preparation 2M-4X lay idle for 14 years and in the Komi ASSR batches of 12 percent GXTsG dust and simeb were lost for the same reason. Pesticides are not being stored in a satisfactory manner in Bryansk, Tambov, Irkutsk, Tomsk or Amur oblasts, in the Checheno-Ingush, Kabardino-Balkar ASSR's or in Khabarovsk Kray. Incidents have been uncovered of pesticides being stored outdoors and also at storehouses which do not conform to the sanitary requirements. The construction of storehouse capabilities is being carried out in an unsatisfactory manner and from year to year the plans for placing them in operation are not being fulfilled. Thus, in 1986 the plan for the construction of storehouses in Yaroslavl, Amur and Pskov oblasts was fulfilled by only 15 percent, in Bryansk Oblast — by 24, Chelyabinsk Oblast — by 28 and in the Kabardino-Balkar ASSR — by 16 percent. Not one storehouse was built in Magadan, Saratov or Sakhalin oblasts or in the Kalmyk ASSR.

The storehouse requirements in each kray, oblast and ASSR must be determined taking into account the deliveries of pesticides and an inventory must be conducted of existing capacities. The station leaders must be familiar with the storehouse capacities of each farm, so as to be in a better position to rule on the construction of storehouses.

There have been instances in which industry has supplied low quality preparations and yet the majority of the plant protection stations have been able to cope with this phenomenon. Only a few have complained to the manufacturing plants. Low quality products have appeared at the Krasnodar, Bashkir, Novosibirsk, Tyumen and Mordovian plant protection stations.

The timely and high quality carrying out of protective measures is impossible in the absence of correct planning for the pesticide requirements. However, a considerable number of the plant protection stations are not applying themselves in a responsible manner in the matter of submitting requisitions. In June of last year alone, the administration received 125 letters concerning pesticide deliveries, the majority of which duplicated the basic requisition or were aimed at correcting mistakes

made earlier. The 1987 requisitions of the Mordovian, Lipetsk, Ryazan, Amur, Sakhalin and Komi ASSR plant protection stations were prepared in a careless manner and they reflected an increase in the norms for pesticide consumption and a disparity between the plans for protective work and the pesticide requirements.

In 1986, many unjustified requests were received concerning additional allocations or the removal of resources. Thus the Dagestan Plant Protection Station, which had been allocated sufficient fungicides for three treatments of rice, requested enough for still another treatment and in the process it rejected the use of domestic contact action preparations. The Altay Kray rejected the use of benlat and hexachloran at the beginning of the year and then later requested the restoration of deliveries of these preparations. In April 1986, Krasnodar Kray, at its request, was allocated an additional and considerable quantity of sineb and in May it decreased its deliveries of this preparation. Orenburg Oblast, which was receiving a full supply of fungicides, requested an additional supply of sineb only to reject its use shortly thereafter. Kuybyshev Oblast issued a requisition for tilt in July and in August it ceased using it.

Allow me to cite still another example: as a result of a mistake in forecasting the development of the beet webworm, it became necessary to transfer insecticides on an urgent basis to Novosibirsk, Kemerovo and Omsk oblasts and to the Altay and Krasnoyarsk krais. Such an irresponsible attitude towards the formation of the pesticide supplies leads to violations in their delivery schedules, unjustified transport operations and the accumulation of surplus amounts.

The average seasonal output per sprayer was 720 hectares. In Tambov, Lipetsk, Orel, Moscow, Tula and Novgorod oblasts, the Chuvash, Bashkir and Tatar ASSR's and in Krasnodar Kray, more than 80 percent of the areas were treated using the ground method, the average workload per sprayer during a season was 790-1,050 hectares and on the best farms in these oblasts and autonomous republics — 1,100-1,200 hectares, with the chemical protective work being carried out in a high quality manner. In Volgograd, Orenburg, Ulyanovsk, Omsk, Novosibirsk and Irkutsk oblasts, in Krasnoyarsk and the Maritime krais and in the Kalmyk ASSR, only 33-50 percent of the areas were treated using the ground method and the average seasonal output of a sprayer was 352-740 hectares. Very poor use is being made of the equipment in Kostroma, Pskov, Belgorod, Sverdlovsk and Kemerovo oblasts.

Many plant protection stations have been released from having to solve the problems concerned with the repair and adjustment of sprayers, the training of machine operators or organizing the work of specialized brigades and teams. Such stations as Volgograd and Stavropol are no longer concerning themselves with organizing the work of plant protection detachments of Agropromkhi-miya.

The same can be said concerning the organization of airborne chemical operations. We encounter frequent incidents in which aircraft operate in the absence of signalmen, the proper flight altitudes are not maintained and aerial sprayings are carried out despite strong winds and high air temperatures and using equipment that is defective or unsuitable for this purpose.

We are also encountering problems in connection with observance of the rules for equipment safety as they pertain to the use of pesticides. Thus, some farms in Omsk and Irkutsk oblasts are employing personnel for work with chemical preparations who have not undergone medical examinations and who lack protective clothing, despite the fact that such clothing is available at the storehouses. At the Zarya Kolkhoz in Tselinniy Rayon in Kurgan Oblast, workers loaded disinfected grain while not wearing protective clothing. In the Kabardino-Balkar ASSR, incidents involving the manual disinfecting of seed were noted. A solution has still not been found for the problem of centralized laundering of special work clothing and proper control is not being exercised over the use of respirators, the periodic replacement of spare cartridges or over the storage conditions for special work clothing or other items of protective equipment.

Some stations complain over the inadequate supply of respirators, cartridges for them, coveralls, special work clothing and eyeglasses. These represent clear oversights on the part of the local organs of supply, since on the whole the republic's requisitions for protective equipment are being satisfied by almost 100 percent. Moreover, the TUZhER 3246-82 special outfits for women and the TU 17-08-146-81 outfits for men are not being requisitioned in sufficient quantities. In 1986, no requisitions for such clothing were received from Bryansk, Ivanovo, Kalinin, Kaluga, Gorkiy, Lipetsk, Saratov, Ulyanovsk, Penza or Kemerovo oblasts, from the Tatar, Mari, North Ossetian or Checheno-Ingush ASSR's, the Maritime Kray and others.

In 1987 the supplies of protective equipment were turned over to the territorial administrations of Glavnab [Main Supply Administration] and thus all problems concerned with the availability of this equipment must be solved through the oblast, kray and republic supply bases.

The principal element of the plant protection service consists of rayon stations. Recently however, the role they play in organizing protective measures and exercising control over their implementation has been weakened considerably. An increase in the wages of workers attached to the plant protection service is making it possible to reinforce the personnel staffs with experienced specialists, who are capable of taking an active stand as true proponents of all new and advanced developments.

Ideally, councils of specialists should be created and attached to the oblast, kray and republic (ASSR) stations, for the purpose of collectively developing a strategy and tactics for protecting plants in conformity with local conditions. The rayon stations will be supported by plant protection agronomists from the kolkhozes and sovkhozes. Unfortunately, they are still very few in number: they are in operation at only 15 percent of the farms. It is for this reason that many orders and instructions have been issued. Control must be exercised in the interest of ensuring that they are carried out.

In preparing to celebrate in a worthy manner the 70th anniversary of the Great October, the workers attached to the agro-industrial complex of the Russian Federation adopted high socialist obligations for 1987. The plans call for the production of 129 million tons of grain, 3.4 million tons of sunflowers, not less than 30.5 million tons of sugar beets, more than 13 million tons of vegetables, 2.9 million tons of fruit and berries and 700,000 tons of grapes. It is the responsibility of the republic's plant protection specialists to provide the farmers with assistance in obtaining a rich harvest from each hectare.

#### Follow-Up Commentary

Moscow ZASHCHITA RASTENIY in Russian No 10,  
Oct 87 pp 8-9

[Five letters sent in to Editorial Board]

[Text] The events involving the loss of onion plantings at the Leninskiy Put Kolkhoz in Baksanskiy Rayon and suppression of potato growth at the Kolkhoz imeni Lenin in Prokhladnenskiy Rayon were discussed at rayon conferences of rayon and republic plant protection stations. A strict instruction was handed down not to cultivate simazin-sensitive crops on fields where simazin had been used, prior to the complete decomposition of the herbicide. Workers attached to the Control-Toxicological Laboratory of the republic's plant protection station were tasked with intensifying control over observance of the regulations for the use of pesticides.

Incidents involving the incorrect storage of mineral fertilizers and chemicals were examined during a joint meeting of the presidium of the oblast council of trade union workers of the agro-industrial complex and the republic's State Agro-Industrial Committee. An order was issued for the construction in 1987-1988 of storehouses for the storage of chemical agents. The modernization of the republic's principal chemical base was carried out. The manual disinfecting of seed was categorically forbidden in the republic and no such incidents were noted in 1987.

A.A. Brazhnikov,  
Chairman of Gosagroprom,  
Kabardino-Balkarsk ASSR

In preparing for the 1987 work season, we strived to profit from the lessons of last year and thus improvements were realized in organizing the decontamination of seed for grain and technical crops. During the winter, training was provided for those specialists concerned with the technology and methods employed for improving the disinfecting of seed using film-forming polymers. Staffs were created throughout the oblast and rayons for the purpose of exercising control over this work. The agro-industrial committee published an order concerning the introduction of progressive seed decontamination methods. Teams consisting of 2-3 individuals were created in each rayon and these teams were provided with instructions on the safety measures to be followed during disinfecting work. The Agropromkimiya bases were provided with the required amounts of disinfectants in a timely manner and the special equipment was prepared for operations. Control over the quality of the work was provided by KTL specialists, who analyzed the seed samples using the express method. This made it possible to introduce corrections immediately to the consumption norms for the disinfectants. The decontamination work was carried out on asphalted threshing floors.

All of the seed required for the spring sowing, 350,000 tons, was disinfected. Of this figure, 111,000 tons were prepared in advance, 190,000 tons were treated with adhering materials (or 136 percent of the 1986 figure) and 110,000 tons were treated with highly effective systemic disinfectants. The established regulations for this decontamination work were carried out in a strict manner.

However, an acute shortage of disinfecting machines is being experienced throughout the oblast. Only 70 percent of the number required are available for operations. Of the 62 machines requested in 1987, only 52 were received. V.N. Amelin,

Chairman of the Agroprom Committee for Volgograd Oblast

The article was examined by the collective of the Agropromkimiya Production Association and the criticism addressed against the specialists of the Plant Protection Service in Ivanovo Oblast was recognized as being fair.

For the purpose of improving the organization of protective measures for the seed plants of perennial grasses, a campaign against pests, diseases and weeds was recognized as being a most important element of the measures developed for increasing their production during the 1988-1990 period.

Inspections were carried out and strict control established over the storage and use of individual means of protection and specialized clothing at the kolkhozes and sovkhozes. Respirators and the cartridges required for their use and other means of protection are now being used only as intended. We are now carefully checking the



preparation of the requests by kolkhozes and sovkhozes for individual means of protection and specialized clothing, which thereafter we allocate to the farms on an as-needed basis.

The Mark TU-08-146-81 specialized clothing outfits were allocated in the amount of 2,000 sets using 1987 funds.

S.Ye. Tyurin

Acting chairman of the Ivanovo Agropromkhiya Production Association

Gosagroprom, [State Agro-industrial Committee] for the Komi ASSR, after having examined the article, considers the critical comments to be fair. As revealed by an inspection, the pesticides at 35 farms throughout the republic were stored in suitable facilities. Because of lack of conformity with the sanitary requirements, three storehouses were closed down by the sanitary service. The shortcomings noted are being corrected. A new standard storehouse has been built at the Vymskiy Sovkhoz. Standard chemical storehouses have been placed in proper working order at the Gamskiy and Pyeldinskiy sovkhozes and permission has been granted to store pesticides in them.

Preparations having a prolonged storage life have been redistributed among the rayons and used in conjunction with a consumption norm that conforms with a recomputation for loss of active substance.

In order to improve the storage conditions and the correct use of pesticides, a program of measures for protecting the environment and the health of workers has been developed and coordinated with the republic's SES [Sanitary and Epidemiological Station] and the Komirbyvod Administration. The plans call for the construction during the 12th Five-Year Plan of 15 standard storehouses with a capacity of 145 tons and 10 platforms for the decontamination of seed.

The requisitions for chemical plant protection agents are prepared in conformity with the established norms and taking into account the available supplies.

A.Ye. Karmanov,

1st deputy chairman of Gosagroprom for the Komi ASSR and minister of the Komi ASSR

Truly, in 1986 the oblast plant protection station rejected the importing of 40 tons of TMTD [tetramethylthiuram disulfide], owing to the fact that 42 tons of this preparation that were 6 years old had been uncovered as a result of a thorough inventory of pesticides on farms and at bases of Selkhozkhimiya. The pesticide was checked for its content of active substance in a control-toxicological laboratory and it was recommended for use

by the farms in disinfecting seed. A more effective preparation was brought in as a replacement for the TMTD — vitatium in the amount of 18 tons. B.V. Prokpochnik,

Chairman of the Agro-Industrial Committee for Tyumen Oblast

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**Institute Director on Virgin Land Development**  
18260006a Tselinograd FREUNDSCHAFT in German  
25 Dec 87 p 2

[A two part article by Mechlis Suleymenov, director of the Union Research Institute for Grain Growing imeni A.I. Barayev and corresponding member of the Union Academy of Agricultural Sciences imeni V.I. Lenin: "Virgin Land: People, Years, Problems"]

[25 Dec 87, p 2]

[Text] Agriculture in the steppes of North Kazakhstan is pursued under extremely complicated conditions. Although the soils as a whole are fertile enough, one-third of the arable land is structureless salty soil; there are also many salty soils. The main factor that hinders the achievement of high yields of agricultural crops is the lack of moisture: the average annual precipitation is 200 mm in the south and about 350 mm in the north of the virgin land area. The strong winds that cause a constant danger of wind erosion in the open steppe are a major hindrance for a successful pursuit of the grain economy.

Let us compare these conditions with those in the prairie provinces of Canada, which are considered to be analogous to the Kazakh virgin land. In the Canadian prairie, grain production is carried on with an average annual precipitation of 350 to 450 mm. Its distribution is also more favorable. The second half of the summer is drier in the prairie, which contributes to a more even maturation of grain crops.

In the time span from 1956 through 1960, in which the mass reclamation of the virgin land began, the weather conditions were more favorable than usual, which tipped the scales in favor of a false orientation of agriculture in this region to the customary methods.

At the beginning of the 1960's, which was characterized by dryness, agriculture began to cause great damage to the virgin land sovkhozes through the use of conventional methods. The hectare yields of the grain crops declined to 5 to 6 decitons. As a result of the development of the erosion process, the fields lost their fertility and the weed infestation of the crops increased rapidly.

Time was needed to develop the bases of a new agricultural system. Thanks to the active work of the scientists of the Union Research Institute for Grain Growing, other scientific institutions of the country, and the engineers and designers, a set of machines was developed in a short time for the practical realization of the scientists' ideas with respect to the new soil cultivation methods. They thereby creatively utilized the ideas of T.S. Maltsev on soil cultivation without plowing and the Canadian experiences in combating wind erosion.

By the end of the 1960's, the agricultural system in the virgin fields of Kazakhstan had experienced drastic changes: they used skim plows rather than the conventional plows, stubble-drill cultivators instead of disk-blade drills, and spiked rollers instead of pronged harrows. They began to use fertilizer in grain growing and the time for the sowing of the summer crops was shifted to the second half of May.

As a result, the erosion processes were stopped in a vast territory and the yields of the grain crops increased significantly. In the last two 5-year plans (1976-1985), the average annual grain production was about 16 million tons with an average yield of 10 decitons per hectare. Among the prairie provinces of Canada, the province of Saskatchewan is closest to North Kazakhstan in terms of climate and the nature of the grain economy with excellent production of spring wheat. The average annual grain production there in the 5 years (1981-1985) was 18 million tons in an area of 10 million hectares with an average yield of 18 decitons per hectare.

The nature of the intensity of land use, however, is very different in the two regions: in North Kazakhstan, fallow lands accounted for 2.7 million hectares or 14.4 percent of the arable and fallow area, whereas in Saskatchewan it was 6 million hectares or 37.5 percent. As a result, the grain yield per hectare of arable and fallow land was 8.6 decitons in North Kazakhstan and 11.2 decitons in Canada, that is, with a difference in hectare yields of 8 decitons the grain yield differs by only 2.6 decitons per hectare.

To achieve the same results in North Kazakhstan as in Canada in the grain yield per hectare of seeded and fallow land, production must be increased to 20.9 million tons with a hectare yield of 13.0 decitons.

The experiences of the best agricultural enterprises confirm the reality of achieving such objectives. At the experimental farm of the union research institute in Shortandy, the hectare yield of grain crops on the southern chernozem soils averaged 11 decitons with a range of from 5 to 15 decitons. In the last 12 years (1976-1987), it increased to 17.8 decitons, ranging from 12.9 to 26.5 decitons. We see that the deviations remain large but the level of the yields in drought years is now equal to what one achieved 20 years ago under favorable conditions. That is due to the institute's scientists and the workers at the experimental farm, especially its director Arkadiy

Seleznev and the team leaders—Hero of Socialist Labor G.N. Kulikov and others. In 1986, the work team of Stanislav Gavriluk achieved a record harvest of 32 decitons per hectare.

At Zlatopolskiy Sovkhoz in Shchuchinsk Rayon in Kokchetav Oblast, they obtained an average yield of 21 decitons per hectare in the last 12 years on ordinary chernozem soils. That is one of the best results on virgin land. Here as well, the enterprise achieved outstanding results thanks to the persistent introduction of the zonal agricultural system. In this, one sees the "handwriting" of Vitaliy Luft, who for many years was chief agronomist of the sovkhoz and is now its director.

In Tselinograd Oblast, the production associations for poultry farming in Vishnevka and Tselinograd rayons have outstanding successes to show in agriculture. Both enterprises have less fertile dark chestnut-brown soils. In 15 years, nevertheless, they have been able to double the hectare yields here. In the last 3 years, they have not fallen under 20 decitons per hectare; that is one and a half times to twice as much as in the neighboring enterprises. Here as well, the success was achieved through the uniting of science with progressive practices and thanks to the strictest technological discipline in the enterprises guided by heroes of socialist labor I.D. Dzhangurasov and I.I. Sharf.

A new stage in the development of agriculture in North Kazakhstan, the stage of intensification, began in 1985. Its realization is based on the increasing application of chemicals: mineral fertilizers, herbicides, insecticides and fungicides. It should thereby be specified that it is not a matter of larger quantities—of mineral fertilizers, for example—but of their being spread in optimum quantities, which, at our level of yield under drought conditions, are one-tenth to one-fifth as much as usual in the nonchernozem zone, Belorussia, North Caucasus and many other regions of the European part of the country.

Statistical data indicate that the intensive technology of the cultivation of spring wheat in an area of 5 million hectares has guaranteed a substantial increase in the gross yield of grain. But the calculation of the true effect of intensification requires a restructuring. As in the resolution of the housing problem, where there was a change from the assessment of the living space in use to an assessment in accordance with the decline in the number of those listed as needing housing, and in the answer to the food program, where they began to use indicators of the coverage of the population's demand for foodstuffs, in grain production as well one should not take the increase in the yield from one area relative to another as the criterion but the grain production from the total area taking into account its quality. To account for the absurdity of the existing assessment of the efficiency of the intensive technologies, I can say that

precisely the best enterprises receive the lowest assessments, because there one obtains high yields not from part of the area but from all fields.

Why is there no rapid growth in grain production despite a significant increase in expenditures. In our opinion, the main reason is the inappropriate utilization of the material and manpower resources and especially of the soil. Experimental results and the practice of individual nontypical enterprises, in which outstanding results have been achieved, indicate substantial unused resources even in the case of the agricultural system now recommended that is by no means perfect.

In the typical average enterprises, the lack of material resources and personnel as well as their inefficient use because of the incorrect organization of the work mean that the level of observance of technological discipline in individual elements of the agricultural system and the technologies for the cultivation of grain crops ranges from 30 to 100 percent and from 50 to 80 percent for the technology as a whole. So one must either reduce the sown area or increase labor productivity. More accurately, the goal must be reached in most enterprises through both factors.

The reduction of the sown area of grain crops must not occur mechanically. If technical discipline is followed precisely, there is no reason for such an action and even an increase in area is possible at the expense of the pure fallow lands. In the enterprises where operations are not the best, it is important the raise labor productivity and in part to reduce the sown area of grain crops.

[29 Dec 87, p 2]

[Text] The reduction of the area for grain crops is no end in itself. It is not a matter of the area under cultivation. In North Kazakhstan, through the unrestrained plowing of virgin land, quite a lot of land unsuitable for agriculture was plowed up; the utilization of lands intended for the fundamental improvement of pastures for grain growing became even more significant. As a result, grain crops are being grown on 2 million hectares that produce no effect in intensification and only deprive the cultivated fields of material and technical resources as well as manpower.

The task of removing grain crops from pasture land can be resolved if one takes into account the fact that the ratio between the potential yield capacity of arable land and the pasture land is one to three. For this purpose, one must find 700,000 hectares of arable land instead of 2 million hectares of pasture land. This can be done at the expense of the fodder crops and fallow land. In shifting to the cultivation of early-maturing varieties of corn hybrids, for example, one can reduce their area by a factor of one and a half. As for purely fallow land, its share can be reduced with the improvement in soil culture.

In this connection, it is necessary to revise notions on the development of salty soils. The theoretical bases of this problem do not evoke any great contradictions. In practice, however, this is being done without following scientific recommendations. As a result, only a part of the salty soils is of benefit, the investments are not justified, and a part of the salty soils is simply completely ruined. The causes are well known: lack of land improvement equipment and qualified personnel and poor soil culture.

Under these conditions, the plowing up of salty soils must be stopped and efforts must be directed toward the improvement of the areas that have already been plowed. One must take into account the fact that in the virgin lands the salty soils are in the dry steppes, where there is a shortage of people for the work in the arable land. The continuation of the plowing up of new lands for grain growing will be a great ecological mistake. It is time to stop this! All parcels between fields have already been plowed. Together with the plowing of areas with salty soils and of lands intended for a fundamental improvement of pastures, it has already led to an accelerated development of water erosion of the soil. The question of discretionary plowing must not depend on instructions from above but be put on a scientific basis, supported by the necessary material and technical resources and manpower.

The prospective development of the agricultural system for the dry steppes can take place only on an intensive basis. The following tasks are set: raise the stability of grain and fodder production per hectare of arable land, find ways to conserve and increase the fertility of the soil and to raise the resistance of the soil to wind and water erosion, increase substantially (by 20 to 25 percent) the grain and fodder production per hectare of arable land, and lower the energy expenditure for the production of each deciton of grain by 15 to 20 percent. These tasks must be resolved by intensifying the cultivation of all agricultural crops and crop rotations. One must thereby pay special attention to the ecological and economic aspects, that is, to the conservation of soil fertility, the prevention of all erosion processes, the rational application of chemicals, and the most efficient use of the arable land possible.

Intensification also presupposes the more efficient use of the soil. It has already been determined that the large share of purely fallow land in the crop rotation leads to an accelerated loss of humus. In the future, therefore, it will be necessary to shift to a longer crop rotation and to a reduction of the share of purely fallow land.

The anti-erosion technology has been widely recognized not only by Kazakh farmers. But the experiences in its application under the different soil and climatic conditions have revealed many structural flaws. On hard salty soils with little moisture, for example, the skim plows penetrate the soil only with difficulty and the deep



looseners turn up clumps that are too large. The manure spreaders-deep looseners and stubble drills, which are not very efficient, also have shortcomings.

The long periods required for bringing in the harvest are a weak link in the technology of grain production. The current technology for the recovery of the harvest is in contradiction to the intensive cultivation of grain crops, for the increase in yields means a prolongation of the harvest time and an increase in losses. The virgin land needs far-reaching slitting rollers for the one-phase harvest and dependable reapers for the two-phase harvest.

At the present time, only phosphorus fertilizers are recommended for the grain fields. But this system of fertilizing does not correspond to the principles of intensive agriculture. Scientific research has demonstrated the advantage of spreading nitrogen fertilizers on fields that had not recently lain fallow.

The role of plant protection against weed infestation, pests and diseases increases in intensive agriculture. The task is to clean up the fields through a complex of agrotechnical measures and the application of herbicides as a measure against weeds.

The average-ripening spring wheat variety "Saratovskaya 29" has been predominant for three decades. In different years, quite a few varieties appeared whose yield was superior to that of "Saratovskaya" but they did not stand the test of time. The North Kazakhstan Selection Center is now proposing two new spring wheat varieties with average ripening for the production of "Tselinnaya 26" and "Tselinnaya 60" as well as the medium-late variety "Tselinnaya Yubileynaya." We are putting particular hopes on the last-named variety, which in 3 years on the variety plots of North Kazakhstan and in production tests gave an additional yield of 3 to 4 decitons per hectare beyond the standard. It is now a matter of an accelerated propagation of the seed of these varieties, which, besides the high yields, also provide strong grain of high quality.

The reorganization of agriculture on an intensive basis began in 1985 in North Kazakhstan. The research institute is supervising its realization in Tselinograd Oblast, above all in Shortandy Rayon. Not everything is working out as it should but the successes are noticeable. In Tselinograd Oblast, the first steps have been taken toward improving the structure of the sown areas and there has been a vast improvement in the work of the fall cleanup and the piling up of snow for moisture; the infestation of the fields with weeds is declining. For 2 consecutive years, 1986 and 1987, the oblast has exceeded the plans for yields and the sale of grain to the state. In both years, Shortandy Rayon led the oblast in yields. In 1986, the yield per hectare was 18.5 decitons and in 1987 it was 18.2 decitons. That is twice what it was in the dry 11th 5-Year Plan and 4.5 decitons more than in the favorable years of the 10th 5-Year Plan.

The task of intensive grain growing cannot be accomplished without a rapid increase in labor productivity. One of the most certain ways to realize it is to establish collectives of intensive labor. Among such collectives, the work group around Fedor Belich at Ivanovskiy Sovkhoz has distinguished itself in Tselinograd Oblast. In 1986, two machine operators achieved the following results relative to the average indicators at the sovkhoz: the labor productivity was 3.7 times greater, the crop yield per hectare was 19.0 decitons compared with 14.2 decitons, the cost of production of a deciton of grain was 5.16 rubles against 7.39 rubles, and the grain production per machine operator amounted to 900 tons compared with 240 tons.

Under the complicated harvest conditions of 1987, the work group made up of F.F. Belich, V.V. Dityatev and V.Ch. Romanenko was the first in the rayon to bring in the harvest and achieved 510 hectares per harvester combine as opposed to the average of 304 hectares and 828 tons of grain per machine operator against the sovkhoz average of 205 tons.

The future of agriculture in the virgin lands of Kazakhstan will develop on a solid ecological and economic basis using intensive technologies for the cultivation of grain and fodder crops in the collectives of intensive labor in accordance with lease orders.

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## LAND RECLAMATION, WATER MANAGEMENT

Deputy Section Head on Reclamation Problems  
18260006c Tselinograd FREUNDSCHAFT in German  
17 Nov 87 p 2

[Article by Tulegen Sarsembekov, deputy section head in the Kazakh USSR Ministry of Land Reclamation and Water Resources: "The Steppe Needs No Swamps"]

[Text] The current restructuring in the republic's agricultural sector is aimed at a higher efficiency of the irrigation areas in Kazakhstan. What is needed to achieve this? Above all a strict adherence to all agrotechnical procedures and to the irrigation system as well as to technological and production discipline.

For a long time, unfortunately, the extent of the newly irrigated areas and of the utilized resources were considered evaluation criteria for the work of the branch. The gross principle to which the economic mechanism of the branch administration was oriented necessarily had to have a negative effect on the technical state of the irrigation systems and installations as well as on the efficiency of the irrigation hectare. Questions of use were thrust into the background. Currently our primary attention is being paid to the utilization of the irrigation systems. Here, that is, in the use of ground and water

resources, it is above all necessary to establish order. Can it, then, be considered normal that 50,000 to 60,000 hectares of land become marshy and salty annually?

The new installation and technical reconstruction of the irrigation systems and the amelioration of the irrigation areas will be a priority direction in water projects. It is proposed that not so much new irrigated land be opened up and that one use the resources thereby freed to improve the areas that have already been developed. Annually 70 percent of all resources allocated to the development of amelioration are to be earmarked for this purpose.

The introduction of scientifically valid agricultural systems and industrial cultivation methods for agricultural crops is supposed to have a great effect. Quite a lot has already been done in this direction. On about 452,700 hectares in the republic, they are continuing to work toward the achievement of programmed harvest yields. Rice and corn are being cultivated in accordance with industrial technology in increasingly large areas.

Another direction of the progress in land improvement is the development of consummate irrigation systems with far-reaching automatic self-propelled sprinkler units "Fregat" and "Kuban." Advanced agrotechnical and operating features are characteristic precisely for them. Their application has another aspect as well: there will be a fundamental improvement in working conditions. There are 1,830 "Fregat" and 237 "Kuban" sprinkler systems in use in the republic's irrigation areas. They are being used especially extensively in the agricultural enterprises of Pavlodar and Semipalatinsk oblasts. In the latter, 70 "Fregat" and "Kuban" systems are working in the group method. They are thereby ensuring the increase in fodder production and the lowering of its prime cost.

Surface irrigation is being mechanized more and more with the help of different mobile overhead irrigation units. Unfortunately, there are too few of such machines.

Drip irrigation is very promising in the cultivation of garden crops. At Gorny Gigant Sovkhoz in Alma-Ata Oblast, there is an experimental production field with drip irrigation. The technology is being further tested and improved here. Nevertheless, the mechanization of irrigation remains an acute problem that is being resolved only slowly: too little attention is being paid to the organization and remuneration of the work as well as to the working and living conditions of the workers in this branch. Only 15 percent of irrigation workers were conferred a qualification group that gives them the right to wage supplements. Such an approach to the resolution of social problems diminishes the responsibility and the interest in the final result of their work.

In delving into the multiplicity of melioration problems, by no means should ecology remain unnoticed. The state of such water basins as the Aral Sea and Lake Balkhash is alarming. Because of the unbalanced withdrawal of water in the upper course of the Syr Darya and the extensive development of monocultures through the expansion of their areas under cultivation, the natural inflow of water into the Aral Sea has stopped. The area on the lower course of the Syr Darya is currently a specifically destabilized zone with a badly disturbed ecological structure. Here it is important to mitigate the unfavorable social and economic processes, to prevent the transformation of the deltas of the Amu and Syr Darya into a desert, and to increase the inflow of water into the Aral Sea. The mistakes must be corrected.

## GOODS PRODUCTION, DISTRIBUTION

### Trade Minister Gives Overview of Sector Developments

18270044a Moscow NEDELYA in Russian No 10,  
7-13 Mar 88 pp 6-7

[Article by K. Terekh, USSR trade minister: "In the Interests of the Consumers"]

[Text] The activation of the social policy and measures for the development of agriculture and the production of consumer goods have produced certain results and made it possible to release some of the tension in the supply of animal husbandry products for the population. The reduction of the sales of alcoholic beverages has improved the structure of commodity turnover and consumption. We have begun to satisfy more fully the demand of the population for individual nonfood commodities: cotton fabrics, bedding, and household items. On the whole the production of nonfood commodities are increased during the past 2 years by 16.5 billion rubles or 9.4 percent.

But in general the situation in the consumer market is tense. Very serious problems remain unsolved.

The most critical and pressing, perhaps, is the problem of deficits. Much is being said and written about the deficit and people are trying to reveal its sources. We should like to express our viewpoint as well. The more so since normal trade in and of itself precludes any kinds of waiting lines and is incompatible with a deficit.

And so, the deficit. First of all let us take a look at how and why it has arisen. The main reason for the periodic shortage first of certain commodities then of others, in our opinion, consists in the fact that the production of consumer goods lags far behind the growth of the monetary incomes of the population. The planned increase in the output of consumer goods was not provided for during the past three five-year plans. The year 1987 was no exception in this respect.

Trade (and, consequently, the consumers as well) failed to receive a total of 9.5 billion rubles' worth of commodities as compared to the plan. There was a sharp reduction in the receipt and sale of imported items. Because of the shortage of resources and interruptions in the deliveries the supplies of goods decreased during 1986-1987 by almost 14 billion rubles. This created additional difficulties in the consumer market and in trade itself (and our branch, as we know, has changed over to cost accounting and self-financing). We have not managed to avoid interruptions in the trade of a considerable number of goods. These include tea, coffee, sugar, vegetable oil, tights, toothpaste, batteries, and other items in mass demand.

Of course there was reason to expect that with the changeover of industry to the new conditions of management a breakthrough would take place. But this did not happen. I shall give some examples. Light industry enterprises in 1987 failed to deliver to trade more than a billion rubles' worth of clothing, footwear and knitted items as compared to the agreements that were concluded. The volumes of deliveries of cultural-domestic and household goods was 4.6 billion rubles less than planned. As compared to the plan the buyer failed to receive 733,000 television sets, of which 566,000 were color sets, 206,000 tape recorders, 378,000 sewing machines and 258,000 washing machines. Planned assignments for production and delivery of household equipment to trade were not fulfilled by enterprises of the USSR Ministry of the Communications Equipment Industry, the USSR Ministry of the Radio Ministry, the USSR Ministry of the Electrical Equipment Industry, and others. This had an extremely negative effect on the satisfaction of the consumers' demand and the development of commodity turnover.

The prolonged lack of balance between the demand (more precisely—the monetary incomes of the population) and the supply of goods and services led to a situation where beginning in 1982 the plans for commodity turnover (including last year) was not fulfilled by significant amounts. Last year only the trade organizations of the Belorussian SSR, the Lithuanian SSR, the Estonian SSR and the Moldavian SSR fulfilled their assignments: here they looked for and found reserves for production and sale of goods and not explanations for their shortcomings.

In all of these disproportions, one could also see, of course, specific peculiarities of the current market conditions. The further reduction of the expenditures of the population on the acquisition of alcoholic beverages had an effect. During 1985-1987 they decreased by more than 37 billion rubles. With the money that was saved the population purchased more vegetables, fruits, confectionery items, clothing, footwear, and many items for household use. Thus there was an even greater shortage of goods, which even before were not fully satisfying the demand. The implementation of measures for limiting the sale and consumption of alcohol also caused negative deformations in the demand among a certain part of the population, which was manifested in increased sale of sugar, yeast, products containing alcohol, and other household goods.

In connection with the reduction of the influx of potatoes and vegetables into trade and their poor quality (I have in mind the 1987 harvest), there was an appreciable increase in the demand for groats and pasta items. At times certain kinds of them did not satisfy the demand. I should like to emphasize, however, that on the whole there were enough grain resources for stable supply of the population. Therefore there is no need to make extra purchases or create reserves.



It must be admitted that in a number of cases the interruptions in the trade of various goods take place because of mistakes in our commercial work. And many of our trade workers do not have enough elementary resourcefulness. This is shown both by our inspections and by reports from trade correspondents as well as letters from the population. The USSR Ministry of Trade and its local agencies take measures regarding each of these cases.

I am convinced that far from everything possible is being done in trade to find additional commodity resources and improve service to the consumers. I shall use as an example the trade in timber and construction materials.

As we know, last year the USSR Council of Ministers made a decision to transfer the trade in these goods in the cities and workers' settlements (which was previously handled by the USSR Gosstab) to the trade ministries of the union republics. The results were not slow in being seen: the sale of these items that are necessary to the population is increasing at rapid rates and last year reached 5.7 billion rubles as compared to 2.4 billion in 1981. The sale of timber and construction materials has been arranged fairly well in many oblasts of the Ukraine, Kazakhstan, and Belorussia, as well as in the Baltic republics. Here they have seriously begun to develop a material and technical base for this kind of trade and to organize it. In a number of union republics (the Uzbek SSR, Georgian SSR, Armenian SSR and several oblasts of the RSFSR and so forth) the situation is changing slowly so far. The provision of space for trade is considerably less than is needed. There are no additional services for the consumers. The majority of bases and stores do not have loading and unloading mechanisms. The consumers are experiencing great difficulties with the transportation of the materials they have purchased, the sawing of timber, and the cutting of glass. The possibilities of expanding the sale of local construction materials are being poorly utilized. Cooperatives and the family contract, which are very useful in this matter, are being poorly enlisted. In spite of the increase in market funds, the demand for timber materials, cement, linoleum, ceramic tiles or walls and floors, and sanitary technical items is still not being satisfied.

In general, there is something for which to criticize us here. If only because who other than the trade ministries of the union republics and the local trade organizations should take the necessary measures to obtain from the producers a broader assortment of these items and good packaging and convenient containers for them!

And is it really true that with the proper assistance and indispensable support from local agencies and coordination with consumers' cooperation it is possible everywhere to organize free sale of sand, gravel, crushed rock, and other rock? Of course it is possible. The more so since the state has specially allotted module buildings

made of light structures, loading-transportation and machine equipment as well as automotive transportation for trade in timber and construction materials. Naturally, none of this negates the responsibility of local soviets of people's deputies for the condition and development of this trade.

I cannot but discuss the waiting lines. I understand: they are an immense social evil and they take up a considerable share of the free time and sometimes, out of a necessity, also working time. The waiting lines are generated, in the first place, by the shortage of goods and, in the second place, by the poor development of self-service. At an expanded board meeting of the ministry they recently discussed the fact that in the branch, under various pretexts, considerably less attention has been paid to self-service. This is explained by the low level of packaging of foodstuffs at enterprises of Gosagroprom. The assignments set in this area are not being fulfilled.

Of course the trade enterprises themselves are also obligated to take advantage of all possibilities for packaging food products. For example, in Klaypeda, Kaunas, Vinnitsa and Voroshilovgrad, with the help of modern technical equipment, they were able to implement a program for streamlining trade. As a result, they provided both convenience for the consumers and preservation of the goods. And this problem, incidentally, is extremely crucial for trade.

The more so since the lack of balance between demand and commodity supply—in terms of structure, assortment and quality—remains critical. With respect to many goods the structure of production for a long time has not corresponded to the structure of consumption recommended by science. The per capita consumption of fish products in the country have practically reached the norm. But their assortment does not correspond to the demand of the population. Thus in the volumes of fish supplies fish filets—and this is a commodity that is in especially high demand—comprised only about 1.5 percent. There is a great unsatisfied demand for culinary items, live fish, and such traditional kinds of fish as cod, perch, hake, and flounder. It is quite possible to improve the utilization of resources and many other food commodities. As they say, there are plenty of reserves here. It is known that we have a critical shortage of fruits and vegetables. Yet the losses of these products are impermissibly great. One of the ways of reducing losses is to freeze fruit (including on the farms themselves). But the production of fast-frozen fruit and vegetable products is extremely poorly developed. Although the demand for them in large cities of the country alone, according to an estimate of the VNIIS, amounts to 13 kilograms per capita per year, the actual sales amount to less than 1 kilogram. It would seem that it was no accident that the critical need for accelerated growth of the production of fast-frozen vegetables and fruits, semimanufactured products and other products prepared for consumption

was pointed out in the resolution of the conference held in October 1987 in the CPSU Central Committee concerning questions of the development of the processing industry.

We do not utilize the resources of certain nonfood commodities effectively enough either. We are now storing excessive amounts of many kinds of cotton fabrics. At the same time, the demand for prepared items made of these very fabrics is not being satisfied. Essentially the only thing for sale in abundance are women's robes, and these are in a narrow assortment. And as concerns dresses, smocks, blouses and other necessary light clothing we produce considerably less than our organizations order in keeping with the demand of the consumers.

For a long time there has been a short supply of terry-cloth towels, pillow ticking, cotton dress fabrics made of high grades of yarn and improved trimming. At the same time the industry is aggressively overfulfilling production plans and is equally actively offering trade fabrics from the underwear crew, of which we have a surplus today. One gets the impression that when drawing up the production programs light industry does not take into account the wishes of the consumers or the peculiarities of their demand. Incidentally, they are expressed clearly enough in the form of the so-called assortment concepts, a kind of guideline for producing items intended for various groups of the population. To be sure, recently certain progress has been noted here and work is being done. The USSR Ministry of Trade and the USSR Ministry of Light Industry have enlisted branch scientific research institutes in it and are taking advantage of the experience of the CEMA countries. And the primary goal is to satisfy the need for clothing and footwear of children, youth, and the elderly.

The situation here looks like this: last year the production of children's coats, jackets, dresses, trousers and suits was reduced. During the fall and winter period of 1987-1988 sewing workers were still behind in the production of children's coats, wool and part wool knitted jackets, blouses, suits and dresses. True, the production of certain kinds of children's footwear increased somewhat. But the demand for hightop shoes and patent leather slippers, boots and canvas shoes was not satisfied.

There are about 55 million pensioners in the country. But in 1987 industry produced only 1.5 million coats and jackets for them. As concerns knitted underwear items for this group of people we produce only...1.2 pieces per capita per year. And clothing for elderly people conventionally includes all items of large sizes and simplified designs. Although in terms of design and also because of the prices these items far from meet the demands of this category of buyers. Our industry "forgets" that the amounts of the pensions do not enable them to purchase costly items.

The problem of providing commodities for youth remain critical as before, although young people comprise more than 20 percent of our overall population. True, the production of clothing and footwear for youth has been developing at relatively rapid rates in recent years, but the proportion of their items still remains inadequate. For knitted items and footwear—5-6 percent, and sewn items—4 percent. The output of especially fashionable, high-quality goods sold at contractual prices last year reached 4 billion rubles—only 5.4 percent of the overall output of light industry items.

We trade workers and the buyers are experiencing more and more keenly the lack of coordination of enterprises of various branches engaged in the production of so-called interrelated items—cassette tape recorders and compact disks, galvanic elements, batteries, radios and so forth. For example, there is an increase in the output of portable radios but there is a shortage of batteries for them. The consumers, of course, are taking their dissatisfaction out on trade.

I shall not say that our workers are always blameless—they also make mistakes. But, unfortunately, neither the plans we coordinate with industry nor the agreements concluded at trade fairs guarantee complete synchronization of the actions of various enterprises or their mutual responsibility. This alarms us extremely, especially today, when the enterprises are changing over to the new conditions of management in keeping with the Law on the State Enterprise.

It is also extremely alarming that industry has not put a halt to increasing the output of "advantageous" goods—both in terms of growth output and in terms of profit. As long as the market is not saturated the producers continue to dictate trade conditions. The list of commodities according to which the activity of industrial enterprises is evaluated is considerably smaller (sometimes by a factor of 5-6!) than the assortment of goods which should be available at the trade basis and in the stores. The producers are not interested in providing for deliveries in the complete assortment agreed upon in contracts with trade. It will be necessary to resolve this crucial contradiction by reaching a point where the order from trade organizations becomes the actual basis for production programs for producing light industry items. This pertains also to food products and other goods as well.

Our ministry is confident that both the development of cooperatives and individual labor activity will contribute to satisfying the demand of the population. The discussion of the draft of the Law on Cooperation in the near future and its subsequent introduction will undoubtedly activate the cooperative movement. This party line relies on the Leninist understanding of the immense significance of cooperation in transforming our economy and the establishment of high-quality trade.

Principally new tasks arise in the work of the USSR Ministry of Trade and its local agencies in this connection. By the beginning of 1988 there were about 300 cooperatives for producing goods in the country and approximately as many cooperatives in public catering. They employed more than 55 million people. In 1987 these cooperatives produced goods and sold public catering products worth a sum of about 175 million rubles (a per capita average of only 60 kopecks).

Certain consumers justifiably complain about the costliness of goods from cooperatives and individual production. But this should be regarded as a temporary phenomenon that is typical only of the transitional period to more mass development of cooperative production in the sphere of services. The more cooperatives there are the sooner the market will be saturated with goods and the greater will be the possibilities of reducing prices. State trade and public catering through their development will also contribute to this on a competitive basis. In our opinion, it is also necessary to have a better thought out, more flexible tax policy.

The development of cooperatives and the competition of producers, like the increased demands and competence of our specialists, should contribute to solving another burning problem for both trade and the consumers—we are speaking about the quality of the goods.

Unfortunately, state acceptance maintains constant observance of only a small part of the consumer goods. The results of inspections conducted by the state trade inspection teams and wholesale bases show that in 1987 there was no improvement as to the quality of sewn items, leather footwear, radios, or metal dishware. In individual cases it is even necessary to speak of their deterioration. The quality of fruit and vegetable products remains at an extremely low level.

Even the increased control on the part of state acceptance, trade inspection teams, and also merchants of wholesale and retail enterprises, unfortunately, has not ruled out the acquisition by trade and buyers of household equipment that does not work.

According to data of the USSR State Committee for Statistics, approximately every third complicated technical good breaks down before the warranty period is up. Each year approximately 4.5 million refrigerators, 5.5 million washing machines, and 8.5 million television sets are sold in the country. It is not difficult to calculate that almost 3 million families will not be able to use their new appliances. Hence the lack of confidence in both industry and trade and the direct losses of time and money of the consumers.

The producers of these items essentially guarantee not trouble-free performance but something like paid repair throughout a particular, extremely short time period. The fact is that part of the value of warranty repair is already included in the retail price of the

commodity and is paid for ahead of time by the consumer. Thus conditions are created whereby it is more advantageous for the producer to repair the item after it is sold than to provide for reliable quality. It is necessary to put an end to this. The principles of warranty repair should be revised.

The consumers should be protected against swindlers. The time has obviously come to include in the evaluation of the quality of goods, along with the monitoring agencies, the consumers themselves. For concealed and sometimes deliberately masked defects are revealed precisely during the process of consumption.

It seems that NEDELYA has come up with an interesting initiative by announcing in conjunction with the AUCCTU and the USSR Union of Designers the creation and the beginning of the operation of the correspondence Consumers Club. Not only the publicity and the public condemnation of slipshod workers and violators of the rules of Soviet trade are important, but also the punishment that must inevitably fall upon them. We are also counting on design criticism of shortcomings and mistakes in trade and also useful advice on how to improve things. And, undoubtedly, we will be interested in developing the active work of the club. We shall render it all kinds of support and above all through restructuring of the work of the branch.

The profound assimilation of cost accounting and self-financing will also contribute to this. The more so since the tasks that will have to be resolved in 1988 are extremely difficult. The increase in retail commodity turnover should amount to almost 22 billion rubles. Even without expanding and updating the assortment and without high quality of the goods, it will be difficult to provide for such a leap.

The beginning of 1988 shows that there is improvement, but the necessary speed has not yet been gathered. Thus in January-February the plan was underfulfilled by 465 million rubles. But the arrears are less than last year. The plan was fulfilled in Belorussia, Georgia, Kirgizia, Tajikistan, Latvia, Lithuania and Estonia. And this is no accident: here they are skillfully assimilating the new economic mechanism. We should also like to mention the labor collectives of the Vilnius Central Department Store, the Tallinn and Daugavpils houses of trade, the Minsk Torgodezhda Trade Base, which have responded with deeds to the new requirements.

The trade enterprises are restructuring slowly in other republics. As before, a considerable proportion of the products of cooperatives and individuals are still sold outside of the state trade network. The trade ministries of the union republics are poorly taking advantage of their right to expand commodity exchange operations with foreign partners and to create joint enterprises with them. Herein lies a significant reserve for increasing commodity turnover.



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#### 48 CONSUMER GOODS, DOMESTIC TRADE

The requirements of the Law on the State Enterprise should provide for a really new level of work and trade for its partner-suppliers in all units as well—from the enterprise and store to the ministries. This is the correct

path of restructuring for more complete satisfaction of the demand of the population.

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## ENERGY COMPLEX ORGANIZATION

### Proposed Restructuring of Pipeline Construction Outlined, Part I

Moscow *STROITELSTVO TRUBOPROVODOV* in Russian No 10, Oct 87 pp 22-27

[Article by G. Ye. Subbotin, chief of the Main Economics Planning Administration of Minneftegazstroy (Ministry of Construction of Petroleum and Gas Industry Enterprises): "Tasks of Restructuring the Industry's Economic Mechanism"]

[Text] A radical transformation of the economic mechanism and conversion from administrative to economic methods of control—these are the tasks set for the industry. They are being resolved to take into account the specifics of construction in the oil and gas industries, based upon existing experience. The proposed organizational structures are being thoroughly analyzed, and ways for implementing the reform in planning, price-setting, the granting of credits and other types of economic activity are being planned. The ministry's various services are involved in this major work. The central areas of economic transformation within the branch that have been defined for the given stage, as well as tasks for the more distant long term, are presented in the article published below.

G. Ye. Subbotin's article gives the basic principles of the reform that touch on planning and conversion to full economic self-sufficiency. A continuation of this article, which is dedicated to problems of price-setting, the granting of credits, accounting and reporting, collective forms for work organization and wages, and control, will be published in a later issue of the journal.

Practical implementation within the country of the decisions of the July 1987 CPSU Central Committee Plenum, which defined the strategic directions of the fundamental restructuring of control of the economy, has been promoted. The basic content of the concept adopted at the plenum is reorientation of economic growth from intermediate results to final results. Conversion will be made from primarily administrative to economic methods of management at all levels of control of the national economy.

At the basis of the restructuring are the following principles:

—a sharp expansion of the self-sufficiency of enterprises and organizations, conversion to full economic self-sufficiency and self-financing, the establishment of direct dependence of income level on operating effectiveness, and development of the collective contract;

—radical restructuring of centralized management of the economy, a concentration of efforts on the main areas that determine the strategy, quality, pace and proportions of development, and a decisive freeing of the center from interference with the ongoing activity of lower economic elements;

—a fundamental reform of planning, price-setting, and the credit-financing mechanism, and conversion by production means to wholesale trade;

—the creation of new organizational structures which will enable an intensification of centralization and an increase in the reliability of cooperative ties; and

—conversion from the centralized command system of control to a democratic system, the development of self-management, the precise delineation of functions, and a radical change in work style and methods.

The creation of unity of the control system, founded on economic methods, which will give a powerful impetus to the industry's development, should result from transformation of the economic mechanism. This makes clear the persistent necessity for raising the responsibility of all workers of the economic services for the realistic solution of urgent problems during restructuring.

The plenum defined precisely the initial point for the forthcoming radical transformation of the economic mechanism. It is the main element of the economy—the state enterprise (or association), and, in our circumstances—the construction and installing trusts, which should be raised to a higher level of management—full economic self-sufficiency and self-financing.

### Planning

The most important elements in creating a unified system for controlling oil and gas construction is a restructuring of planning. The system for formulating plans is to be changed radically at all levels. For purposes of an optimal combining of long-range and current plans and for their continuity, we will convert to the development of a system of plans that incorporate the basic directions of the economic and social development of the industry for 15 years, with breakdown of indicators by five-year period, and, for the first five-year plan—by year also of the State five-year plan, with breakdown of tasks by year.

For purposes of generating priorities and goals for the industry's development and determining the areas of structural and investment policy, scientific and technical progress, and goals for social development of the ministry's organizations and enterprises, a draft of a Concept for the Economic and Social Development of the Industry for a 15-year period will be worked out preliminarily. The concept's draft will rely on the development of scientific-research organizations and on proposals of the main administrations, associations and trusts. This draft

should be passed up for review by USSR Gosplan and other central economic organs not later than two years before the start of the next five-year plan. The approved concept will serve as the scientifically substantiated program for preparation of the draft of the Main Directions for the Economic and Social Development of the Industry for 15 years. Right now the concept for economic and social development for 1991-2005 is being worked out within the industry. The laboratory of economic forecasts and long-range plans of VNIIPKtekhorgneftegazstroy [All-Union Scientific-Research Institute for Design Development and for Organizing the Industrialization of Oil and Gas Construction Work] has a special responsibility for developing it.

USSR Gosplan, in accordance with the Main Directions, will develop and submit to the ministry not later than a year before the start of the next five-year plan period the initial data for planning—the basis for formulating the five-year plan: the control figures, state orders and stable economic standards and ceilings. The ministry should, within a month, submit these initial data to the main administrations and associations.

The control figures are not directive in nature, and they include in consolidated fashion the following line items: the indicator for the production of output (or operations or services) in terms of cost, profit, and the most important generalizing indicators of scientific and technical progress and development of the social sphere. The control figures will become the economic guideposts for formulating the plan.

When considering that restructuring of the planning system is accomplished in a milieu of an approved five-year plan, it is necessary to transform these control figures "on the fly" into indicators of another class. Therefore, the economic indicators for 1988 that are called for by the Statute on the State Enterprise (or Association) within the control figures—total amount of contracting work, the task on labor productivity growth, and profit by type of activity—were submitted to the ministry in August 1987.

Beginning with 1988, the plan for contracting work includes state orders of various levels. State orders are issued for the introduction into operation of production capacity and facilities for the social sphere through centralized state capital investment.

For the oil and gas industry and for Goskomnefteprodukt [State Committee for the Supplying of Petroleum Products], a state order is formulated that consists of trunk gas, oil and product pipelines and gas-treatment plants: 5,800 km of gas pipelines, 1,156 km of oil pipelines, 140 km of petroleum-product pipelines, and processing facilities for 3 billion cubic meters of gas per year; in all, 11 construction projects. Moreover, the state

order includes construction projects for the in-house production base (plants for prefabricated reinforced concrete) and various enterprises for other clients that are due for early startup.

The state order for the ministry level includes basic production capacity that is coordinated with Mingazprom [Ministry of Gas Industry], Minnefteprom [Ministry of Oil Industry], and Goskomnefteprodukt. In regard to facilities of the in-house social sphere, the state order covers preschool institutions, housing, hospitals, polyclinics, and vocational and technical schools.

As a whole, the share of the state order is about 70 percent of the program of Minneftegazstroy operations; and 30 percent of the total work volume will be included in the plans by the trust themselves, in coordination with clients.

It is planned, beginning with 1988, to convert to a system of state orders also in industry. While in 1987 the production of industrial output in accordance with a products list was approved by the USSR Council of Ministers and USSR Gosplan for 42 designated items, in 1988 the state plan will include only 12 line items—one-third less. The state plan includes deliveries of consumer goods and the extension of checking services to the public.

In 1997 the ministry approved output for more than 60 line items. With expansion of the rights of enterprises and of their independence, the products list of the state order at the ministry level has been reduced to 40 line items.

The share of the state order in industry is on the order of 75 percent. However, 25 percent of the total volume of commodity output comprises direct orders of customers.

The most important tool of planned management of the economy is financial planning. Annual planning was used in construction up to the present time. Financial plans included a large number of indicators (balance-sheet items) which were determined in a centralized procedure, taking into account the level reached. All this restricted the rights of enterprises and organizations and reduced their responsibility for increase in income and the effective use of production capital and material and labor resources.

Restructuring of the economic mechanism calls for integrated restructuring of the financial planning system at all levels of administration and conversion to the development of five-year financing plans. In so doing, financial plans should be developed and approved independently by organizations and enterprises.

The initial data for developing the plan were long-term stable economic standards that defined the interaction with the budget and formulation of the wage fund, funds for economic incentives, and other indicators of an



enterprise's economic activity. These standards were called upon to provide for a close correlation of nationwide interests and the interests of economic self-sufficiency.

A procedure and methodology for compiling five-year financial plans for organizations and enterprises is to be determined, and a comprehensive system of control figures and of long-term standards is to be worked out with a view to providing conditions that will enable independent development by enterprises and organizations of financial plans for the 13th Five-Year Plan.

By the end of 1988 drafts of scientifically substantiated economic standards are to be prepared for the 13th Five-Year Plan: payments for productive capital, payments for labor and natural resources, tax deductions into the budget, deductions into the local budget, and funds for wages and economic incentives. It will be necessary to defend these standards to USSR Gosplan and in June 1989 they will be delivered to organizations and enterprises.

In the first half of 1990, the development of a draft of the plan for the 13th Five-Year Plan is to be completed, based on the requirements of the new system for control.

Various standards, such as those for forming wage funds for construction and industry, were developed and submitted to construction organizations and industrial enterprises within the plan for economic and social development during the 12th Five-Year Plan. And so in 1988 they will not be submitted separately. At the same time, certain main administrations and associations will, as before, go to the ministry with applications for an increase in the magnitude of the standards, justifying it by change in the work structure. Apparently, not everyone understands that organizations should seek out and find specific ways for reducing labor intensiveness of the operations and of raising labor productivity by implementing organizational and technical measures. In 1987 a procedure was established for monitoring observance of the stability of the standards which were approved by associations, enterprises and construction and installing organizations that had been converted to full economic self-sufficiency and self-financing. Monitoring was invested in financing organs and banking institutions locally.

In case of violation of the stability of the established standards for the wage fund for workers engaged in construction, USSR Promstroybank institutions determine for trusts and for organizations equivalent to them the size of the funds for wage-fund payments which correspond to the work volume executed, based upon the standards approved for them in the five-year plan (with breakdown by year of the five-year plan). Banking institutions pay out funds for wages to the industry's enterprises, based upon the standards originally approved for them, taking into account and conditions set forth 8 July 1987 by the ministry (the Statute on Formation of the

Wage Fund of Industrial Associations and Enterprises of the Branch). In this case, observance of stability of the standards for growth of the total wage fund is monitored.

It has been established that enterprises and trusts will monitor the stability of such standards as: payment for production assets and deductions from profit to the state budget (including the local budget) and to the ministry. The forming of economic-incentive funds has been vested in financing organs and bank institutions which, when there is a violation of stability, make settlements for payments into the budget from profit, based upon the originally approved standards.

Supervisory workers who are guilty of violating the stability of economic standards bear personal responsibility in the established procedure.

Ceilings for state centralized capital investment for construction and installing operations and for centrally distributed material resources for supporting production and construction are submitted to the ministry in the initial data for developing plans.

Beginning with the 13th Five-Year Plan, the prevailing practice of annual development and approval of state plans for economic and social development will be changed. Trusts and enterprises will, within the established periods, independently plan for the forthcoming year the fulfillment of operations, the production of output, and also other indicators of economic and social development. The ministry's planning services will analyze the proposals for the forthcoming year that the main administrations and associations present and determine the correspondence of these proposals with the State Five-Year Plan for economic and social development of the industry, primarily in regard to economic indicators, state orders and increase in production effectiveness. The development and approval of balances of production capacity, of labor and financing resources, and of centrally distributed supply and equipment resources will acquire special importance.

The Unified System for Planning Capital Construction (YeSPKS) now being developed should yield great benefit.

The following interrelated principles lie at the basis of its development: the integration of groups and complexes of tasks into a unified system; hierarchical and straight-through planning along both the horizontal and the vertical; a rational state of balance of decisions in time and space; a multiplicity of options in decisions and the optimality thereof; the adoption of final solutions on the basis of an interactive analysis of the numerous variants; the conduct of centralized planning with maximum consideration of the initiative of the lower control elements; constant commensuration of national-economic demand for the branch's finished output with the possibilities for satisfying the demand; adaptation of the

industry's planning system, that is, the provisioning for adaptability to changing conditions; and continuity in the planning of technical and economic processes.

The large-scale introduction of Minneftegazstroy's YeS-PKS into oil and gas industry practice should lead to a considerable change in the structure, technology and organization of planning and control of the branch. The ministry will become a coordinating staff for the industry, which will unite the functions of analysis, planning and control of the main subunits of the central staff, the regional main construction administrations (or associations), trusts, and their organizations and enterprises.

It is envisioned that comprehensive balanced coordination of the program that has been worked out, as well as an analysis of its actual fulfillment, will be executed on the basis of a hierarchical system of modern mathematical-economics models and computer-aided methods, as well as central-control resources, office machines and peripheral communications equipment. The central staff's activity will proceed in close contact with the work of the Main Computational and Information Processing Center. The most important directions for such activity should be: comprehensive analysis of computer-generated variants of a balanced production program for the branch; choice in interaction with the computer of the ones that are rational and, at the same time, closer to the optimum; the generation for feedback signals with a view to amending reactions to the system's various input parameters of the system; and so on.

The principle of democratic centralism in planning oil and gas industry construction is to be put into practice. Centralized planning in accordance with the ministry's strategic tasks should provide for a full and reliable state of balance of the branch's macroproportions and create objective prerequisites for stable operation of enterprises and organizations under full economic self-sufficiency. The conversion to planned construction production based on clients' orders will enable the agreed microproportions (by individual type of SMR [construction and installing work], job, executor, and so on) to be provided for.

With the conversion of construction organizations to operation in accordance with state orders, as is called for by the Statute on the State Enterprise (or Association), when the industry is erecting most important power-engineering facilities with specific peculiarities of their construction, the scientifically substantiated development of plans at the level of the ministry's central staff is required in still greater degree. This is justified by the fact that, when the economic self-sufficiency of the lowest elements of control is raised, the coordinating role of the higher levels should be increasingly intensified, since the higher the level of control the greater the degree of comprehensiveness and discrimination in a system for planning that is based on the industry's final output.

This relates especially to the erection of huge lengthy construction projects and oil and gas construction jobs, particularly transcontinental gas-pipeline transport systems.

It is precisely in the highest elements of control that the key problems of interbranch, interregional and intra-branch nature should be solved, such as the rational distribution of capital investment for the in-house construction base, of deductions from the profit of construction organizations into centralized funds and into the reserve for expanded reproduction of fixed capital and other needs, of centralized and in-house resources, of the state order for the industry's finished construction output, and so on.

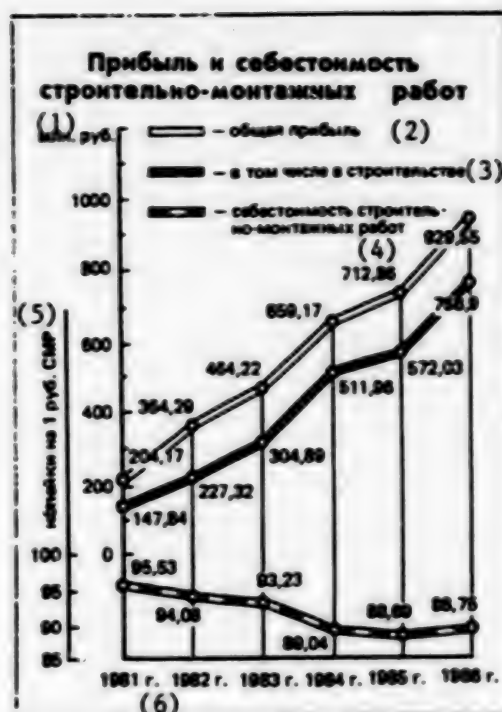
The formation of an "antiexpenditure" economic mechanism both in the national economy and in oil and gas industry construction, based on wide use of the principles of full economic self-sufficiency and self-financing, will enable material outlays for production to be reduced considerably. These and other factors will enable a gradual conversion to the basic mode for supplying materials and equipment—wholesale trade. This signifies that in the long term the trusts will acquire a great portion of their material resources independently through USSR Gosstab regional organs, depending on where they are located. The indicated organs will be the sole fund administrators in the given region. However, in considering the high mobility of the industry's construction organizations, the great distance from where the SMR is done to the regional supply organs, the specificity of the resources consumed, and the high share of facilities of paramount state importance in construction plans, the basic share of material resources apparently will be allocated to the ministry in a centralized procedure within the industry's ceiling, with later sale through the regional USSR Gosstab organs. During the construction of turnkey jobs, problems of providing for balance of industrial equipment in the program for facilities due for early startup, which can be successfully solved only with the use of computer equipment, will acquire special importance.

#### Full Economic Self-Sufficiency and Self-Financing

In 1988, 13 main construction administrations which comprise 100 trusts that will perform 6.4 billion rubles' worth of construction and installing operations (85 percent of total volume) and two All-Union industrial associations comprising 12 enterprises with commodity output volume of 217 million rubles will be converted to full economic self-sufficiency. Moreover, another 35 plants that belong to 8 main administration with commodity output volume of 161 million rubles will be converted to the new management methods. Thus, 47 enterprises that perform 40 percent of the overall program of the branch's construction-industry production will convert to full economic self-sufficiency and self-financing.

Beginning in 1989 all the industry's construction organizations and construction-industry enterprises will operate under full economic self-sufficiency and self-financing. It should be emphasized that, with a high level of profitability for the ministry as a whole, the various main administrations that will have converted to the new system beginning 1 January 1988, have a profitability of less than 10 percent (Glavtatneftegazstroy [Main Administration for the Construction of Oil and Gas Industry Facilities in the Tatar ASSR], Glavukneftegazstroy [Main Administration for the Construction of Oil and Gas Enterprises in the Ukrainian SSR], and so on). The matter is still more complicated with the main administrations that will convert to full economic self-sufficiency on 1 January 1989. A number of them have a profitability level lower than the standard (7.41 percent of the budget-estimated cost). These include Glavzap-sibzhilstroy [Main Administration for Housing Construction in West Siberia], Glavbashneftegazstroy [Main Administration for the Construction of Oil and Gas Industry Facilities in the Bashkir ASSR], Glavneftegaz-promstroy [Main Administration for the Construction of Oil and Gas Field Facilities], Glavsredazneftegazstroy [Main Administration for the Construction of Oil and Gas Facilities in Central Asia], Glavkomigazneftegazstroy [Main Administration for Construction of Oil and Gas Fields of the Komi ASSR], and so on. Specific measures must be prepared now and implemented in the immediate future for reducing the unprofitability of organizations and enterprises, developing and expanding their capacity, improving the control structure, reequipping and rebuilding them, updating the mix and quality of their output, increasing the shiftwork factor, introducing new forms for organizing the work, and improving their financial status. Simultaneously with construction organizations and construction-industry enterprises, trusts and associations engaged in motor-vehicle transport, control of communications, organization of the supplying of and outfitting with materials and equipment, and science and scientific servicing are to develop methodological support for and convert to the principles of full economic self-sufficiency and self-financing. The economic services of trusts, main administrations and the central staff should concentrate their attention on solving the set of tasks associated with preparation and conversion. The Section for Full Economic Self-Sufficiency and Self-Financing of BNII PKtekhorgneftegazstroy has a special role in this important business. The prime institute for the economics of industry within the branch—VNIIPtransprogress [All-Union Scientific-Research and Design Institute for Transportation Development]—is working out a statute for converting enterprises to full economic accountability and self-financing, taking into account the industry's specifics.

In the first half year of 1987, when contracting-work volume was growing by 12.3 percent, labor productivity in line-type construction increased by 13.3 percent and in surface construction by 12.8 percent. The plans for



Profit and Prime Costs of Construction and Installing Work

- Key:
1. Millions of rubles.
  2. Overall profit.
  3. Including construction.
  4. Prime cost of construction and installing operations.
  5. Kopecks per 1 million rubles of SMR (construction and installing work).
  6. Year.

profit and payments into the budget were met. The prime operating cost of construction and installing operations was reduced by 15.1 percent, while the goal for the year was 12.4 percent.

At the same time, 42 trusts, or one fourth of them, did not cope with work-volume goals; 33 trusts, or a fifth of them, did not cope with plans for output. In so doing, the number of trusts that did not fulfill the given indicators (there were 29 of them) even increased over the first half of last year. Fourteen trusts that had been planned to be profitable, had losses of more than 13 million rubles. And 24 enterprises of industry had more than 6 million rubles of losses, of which 19 were planned to have losses.

In working since 1 January 1987 under the new economic terms, the industry's industrial enterprises during the first half of the year provided for, in comparison with the corresponding period of last year, an increase in volume of realization by 5 percent, industrial production by 4 percent, and NChP [standard net output] by 5.1 percent. Fulfillment of the plan for output of the main



types of output has been provided for. A profit of 8.5 million rubles more than for the same period of last year was obtained. At the same time, the number of losing enterprises remained practically unchanged (25 enterprises in the first half of 1986, 24 this year).

The task of the economic services is to carefully scrutinize, together with the main administrations, each specific trust and enterprise which did not meet the technical and economic indicators, and to develop specific measures for helping these organizations.

(Read the continuation of this article in the next issue of the journal.)

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### Proposals for Restructuring Pipeline Construction Outlined, Continued

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[Article by G. Ye. Subbotin, Chief of the Main Economics Planning Administration of Minneftegazstroy [Ministry of Construction of Petroleum and Gas Industry Enterprises]: "Tasks for Restructuring the Industry's Economic Mechanism"]

[Text] Conclusion. See issue No 10, 1987 for the beginning.

The creation within the industry of an integrated and flexible system for economic control will enable the erection of oil and gas industry enterprises with maximum efficiency and within the standard periods. The main requirements for the integrated system for control are the integrated use and mutual cooperation of all elements of the economic mechanism.

#### Price Setting

The economic status of contracting organizations and of the branch as a whole depends greatly upon the status of budgetary price-setting, the quality of design and budget-estimate documentation, and the observance of contract discipline. In 1986-1987 much work was done on converting to coordinated contract prices for the construction of enterprises and of complexes and facilities due for early startup.

At the same time the status of price-setting work in both construction work and the construction industry does not fully meet the requirements of the times. Because of the lack of systematic work on consultants' review of design and budget-estimating documentation, the branch suffers great economic losses. Thus, for example,

the standards and estimating base did not fully consider the amount of work and expenditures on the construction of intrafield pipelines in West Siberia, as well as the additional costs that resulted from use of the expeditionary rotating-duty method. Already today the active participation of Minneftegazstroy specialists in solving problems of setting prices and of determining the budget-estimate cost of the largest construction projects of the 13th Five-Year Plan, such as the Yamal-Central Economic Region gas pipelines and facilities for building up the fields of the Yamal Peninsula and the Caspian oil and gas complex, is required.

The tasks of reviewing budget-estimate prices and cost sheets for capital construction and of introducing new ones as of 1 January 1991 have been set. In so doing, the following are called for\*: restructure the price-setting mechanism for construction work, having precluded the unjustified influence of materials intensiveness on the price levels of the finished construction output; and create conditions for the wide use of contractual estimated prices for finished facilities and for other final output, with differentiation of these prices as a function of the construction product's quality.

In this connection, specialists of the estimating services of trusts, main administrations, the ministry's central staff, VNIIPtekhorgneftegazstroy [All-Union Scientific-Research Institute for Industrialized Construction of Oil and Gas Industry Enterprises], as well as economists and planners, are to do major preparatory work.

The main tasks that must be solved can include the following.

#### In 1988:

conduct of an analysis of existing budget-estimating norms and cost sheets for operations involved in building up the facilities of West Siberia's oilfields and the preparation of recommendations for refining the estimates;

completion of the development of new budget-estimating norms for construction and installing work and for the operation of construction equipment during the erection of trunk and intrafield gas, oil and product pipelines, and submission of the norms to USSR Gosstroy for approval;

refinement of data on the conditions and distances for transporting the main materials, articles and constructional structure shipped in, by oblast, kray, autonomous and Union Republic not divided into oblasts, and also by specialized construction project, and presentation of the data to USSR Gosstroy; and

development and submission to USSR Gosstroy of recommendations on the use of unified prices, c.i.f. the construction site, during settlements for shipments of building materials, articles and constructional structure, and the compilation of budget estimates by construction region.

**In 1989:**

reworking and coordination of the methodology for determining wholesale prices for completely outfitted-module systems produced by the branch's prefabricating and outfitting enterprises;

development and coordination by higher authorities of average norms for overhead for the estimated amount of the basic wage of blue-collar workers and the cost for operating construction equipment;

review and coordination of collections of budget estimates and cost sheets for local building materials, articles and constructional structure that have been developed by design organizations on the basis of the refined data of construction organizations about the conditions and distances for hauling them; and

development and submission to USSR Gosstroy for approval of Collection 25, Trunk and Intrafield Pipelines, and also of the corresponding collections (chapters) of average regional budget-estimate prices for building materials, articles and constructional structure shipped in, and of budget-estimate prices for the operation of construction equipment.

**In 1990:**

determination and approval, with the concurrence of USSR Gosstroy, of maximum norms for overhead costs (on a new base) for general-construction operations, by main administration and association;

development and coordination of new wholesale prices for completely outfitted-module systems; and

preparation and coordination in the established procedure of norms for the erection of temporary buildings and structures, and also of norms for the additional costs for doing SMR (construction and installing work) in winter.

The task of reviewing wholesale prices and schedules in the industry and of introducing new prices and schedules as of 1 January 1990 has been set for 1987-1988. Imparting an antiexpenditures nature to prices and raising their incentive role in accelerating scientific and technical progress, improving output quality, creating new technology, and saving resources, are called for. In so doing, wholesale prices will be formulated, based upon the effectiveness, quality, technical and economics features, and the consumers' characteristics of the output, without using actual base expenditures as the main

basis for determining prices. This work will be done by the prime institute for the economics of the industry—VNIIPITransprogress [All-Union Scientific Research and Design Institute for Transportation Improvement], and other institutes and design bureaus of the branch, by industrial enterprises, and by subunits of the central staff. An important organizational and methodological role in the conduct of this work has been assigned to the Main Economics Planning Administration.

Economically unjustified unprofitability and diversity in profitability of production and realization of output are to be eliminated, and, at the same time, the increased costs incurred by the technical backwardness of enterprises, as well as deficiencies in organizing production, are not to be considered in prices. In order to provide for democratization and an optimal combining of stability and flexibility in price setting, with a simultaneous intensification of centralized initiatives in managing the price-setting process, the following types of prices and schedules will be used: those centrally established, those that are contractual, and those independently established by enterprises and organizations.

The industry's enterprises are producing more than 3,000 designated industrial items, the wholesale prices for which, depending upon the products mix, are approved by the goskomtsens [state committees for prices] of the USSR and the RSFSR and by the ministry. Analysis indicates that for some designated products there is considerable variation in profitability from the standard level. Along with the highly profitable, there is also unprofitable output. Wholesale prices approved by USSR Goskomtsen for some unprofitable items have been determined as a function of the industry-wide prime production cost. A deep analysis must be made and appropriate measures developed and implemented for the process of eliminating unprofitability in a fourth of the branch's enterprises.

It is specified that the state plan for economic and social development for the 13th Five-Year Plan should be made up to take the new prices and schedules into account.

On today's agenda is the problem of a new approach to setting prices for the agricultural output of subsidiary farms and to the formulation of contractual prices for the final output of the industry's scientific-research and design-development organizations.

Integrated use in the branch of the principles of full economic self-sufficiency and of self-financing will depend decisively on the quality of all this work.

**Credit Granting, Accounting and Reporting**

Credit should be a most important tool for including commodity-monetary relationships in the mechanism for planned control of the economy. Improvement of the credit-granting mechanism means economic stimulation

by means of credit and other bank settlements toward achieving high final results. Today the ministry compiles consolidated credit plans on the basis of requisitions of the main administrations and associations, with subsequent submission of them to Sroybank and USSR Gosbank. After obtaining ceilings on short-term and long-term bank credit, the ministry distributes and redistributes them among the industry's subunits.

Under the new terms, all questions of granting credits will be decided locally between the branch's organizations and enterprises and the banks on the basis of agreements that define the mutual economic responsibility. In converting to full economic self-sufficiency and self-financing, organizations and enterprises are encountering rigid economic conditions and, therefore, payment for credit will affect considerably their financial position. Right now the ministry is obtaining more than 2 billion rubles in a centralized procedure, and all credit resources will amount to about 4 billion rubles quarterly.

When working on principles of full economic self-sufficiency and self-financing, effective activity of all organizations and enterprises of the branch is unthinkable without a suitable arrangement for an objective accounting for expenditures and results at the levels of brigades, sections, flowline construction groups, departments and laboratories.

Elements of the standards method for planning and accounting for expenditures for production have been introduced into 650 construction organizations and construction-industry enterprises. However, introduction of this progressive method is held back because of the mental inertia of certain supervisors, and, more correctly, because of economic illiteracy on the one hand and the passivity of the economic services on the other.

A program for radical improvement in the arrangements for accounting in the ministry in an era of full economic self-sufficiency must be developed soon, considering that it should be a most important means for monitoring the effective consumption of all types of resources and the authenticity of the reported data and for reducing paper shuffling.

It should be considered that a deepening of economic self-sufficiency will be promoted by the system of standards and the responsive monitoring of expenditures in the lowest subunits. One of the effective forms used successfully by Latvia's builders is the check system for mutual settlements for materials, wages, transport services, and the use of equipment.

This system seemingly wraps up all the elements of the antiexpenditure mechanism, directly correlating the interests of individuals, brigades, and sections and the trust as a whole. All this paves the way for development of the collective contract and transfer to full economic self-sufficiency.

The tasks of improving the system of state reporting in the national economy and of eliminating surpluses have been set. It is necessary to deeply analyze the content of the industry's system for analytical and statistical information, including data collected and accumulated in the OASU [branch automated control system]. Annual reports about the branch's economic status, progress in fulfilling the specific integrated program for restructuring the economic mechanism, and effectiveness in implementing the tasks of the scientific and technical program should become a new form of analytical work.

#### Collective Forms of Organization and Pay

Introduction of the collective contract and of new terms for pay are first-priority measures for converting to the entire system of economic control. This work is large in scale, since it embraces all the branch's trusts and plants. Organizational and economic conditions that will promote to the maximum conversion to the collective contract and to the new terms for pay must be created for subunits. The branch has accumulated much experience in this work, especially in the lower collectives during experimentation in flowline construction groups. Active measures have been under way for several years on the consolidation of brigades and on converting them to the single work order, and on the creation of brigade councils.

Much has been done also for introducing the collective contract for administrations and trusts. The base trusts for introducing the collective contract have been identified in each main administration. As of 1 September 1987, about 140 separate SMU's [construction and installing administrations] and 22 trusts as a whole worked under collective contract. Already this year it is planned to convert at least one-fourth of all trusts to the collective contract. The basic methodological documents have been worked out, and practical assistance on the part of the NOT [Scientific organization of work] Center has been organized. With a view to distributing widely advanced experience in use of the collective contract, an All-Union school was held in Vladimir in August, jointly with USSR Gosstroy, at the base of SMU-6, Mosgazprovodstroy [Moscow Gas Pipeline Construction Trust].

The goal of preparing and converting all the industry's trusts to the collective contract by the end of 1988 has been established.

Similar work is being done also on converting to the new schedules for rates and pay scales, which today are being used by 16 trusts. By the end of 1988, 80 percent of the construction organizations and 90 percent of the construction-industry enterprises should be working under the new pay terms, and, by the end of 1989, all the industry's subunits. During this work, an obviously more correct solution—converting trusts to the new pay terms, simultaneously with or after conclusion of the collective contract agreements, as a rule—was developed and is being implemented.



However, not by far can we be satisfied with the solution of these two most important problems of restructuring. A number of trusts which are identified as basic in the main administrations are lagging behind the contemplated schedules. Trusts still have not been provided with documents on conversion to the collective contract for servicing and other activities. The development of methodological documents for teaching blue-collar workers the bases of the collective contract are being delayed. Not everywhere is the recompilation of pay rates for work and for blue-collar workers under the new YeTKS being performed correctly. Along with examples of active creative work on introducing the collective contract in Samotlortruboprovodstroy [Samotlor Pipeline Construction Trust], Volgogradneftegazstroy [Volgograd Trust for the Construction of Oil and Gas Industry Enterprises], and Stavropoltruboprovodstroy [Stavropol Pipeline Construction Trust], the Neftekamsk DSK [Housing Construction Combine], and Glavtyumenneftegazstroy [Main Administration for the Construction of Oil and Gas Industry Enterprises in Tyumen Oblast], 13 trusts, for example, are getting ready to convert to the collective contract only in 1989. The supervisors of organizations and enterprises and of workers of all the economic services should take this work under special monitoring.

With a view to intensifying economic self-sufficiency relationships, VNIIPKtekhorgneftegazstroy and the NOT Center must develop a system of economic penalties for nonfulfillment of commitments made under collective contract agreements between the main administration and the trust where they are working under the principles of full economic self-sufficiency and self-financing, taking account of the specifics of oil and gas construction. For further improvement of the pay system, it is desirable to study the experience of extra charges for pay on the basis of budget estimate for the construction of facilities and to prepare the necessary recommendations on their use in linear and surface construction.

### Control

The realization of radical transformations in the legal position of trusts and enterprises because of adoption of the USSR Statute on the State Enterprise (or Association) requires fundamental changes in the functions, methods of activity, and organizational structures of all organs that are above them, primarily the main administrations and the ministry's staff.

The ministry's administrative structure that was formed before the start of 1987 was the result of the purposeful development and practical implementation of a master control plan for the duration of three five-year plans. The existing production structure of the branch as a whole has justified itself. The ministry is coping successfully with fulfillment of the specific tasks of five-year and

annual plans. The work volume is being built up at a fast rate, primarily in areas of new development. The number of unprofitable trusts is being reduced.

At present, constructions operations are being managed under a three-tier system: the ministry; the main regional administration, main administration, main specialized administration or All-Union construction and installing association; and the trust, DSK, or production-type construction and installing administration.

At the start of 1987, 161 trusts, DSK's and construction and installing production administrations with an average annual work volume of 45 million rubles' worth operated as the basic control element. They comprised 950 SMU's, MPK's [mobile mechanized columns], and other organizations equivalent to them.

Twenty main administrations for construction and one All-Union construction and installing association functioned in the middle element. The average annual work volume of these organs in 1986 was 344 million rubles. Moreover, Soyuzzagangaz [All-Union Association for Foreign Gas Operations] acted as an intermediate element.

Control of construction industry is executed mainly under a three-tier system: the ministry; the All-Union industrial association or the main regional administration for construction; and the production association or enterprise, and, partially, it is executed under a four-tier system: the ministry; the main regional administration for construction; the industrial trust; and the industrial enterprise. At the start of 1987, 47 industrial enterprises with an average annual commodity output volume of 12.6 million rubles acted as the basic element.

A fundamental reform of the economy's control, the introduction into operation of the USSR Statute on the State Enterprise (or Association), requires change in the functions of the ministry and organs of the middle control element. A number of functions that are at present carried out by the central staff and by main regional administrations has turned out to be not in compliance with the requirements for converting the industry to full economic self-sufficiency and self-financing. Correspondingly, there is a need for further improvement also of the existing control structure.

Under the new rules, the main administrations will be unified production-economics complexes that are made up of construction trusts, production associations, construction-industry enterprises, and scientific and design-development, transport, outfitting and other organizations. The enterprises and associations that belong to the main administrations should be guided in their activity by the USSR Statute on the State Enterprise (or Association).

In managing basic construction operations it is desirable: to consolidate and unite small unprofitable, poorly profitable and duplicative operating organizations; to develop new and progressive forms for managing construction operations—design and construction associations; and to become oriented to the turnkey erection of industrial, housing and public-building facilities. The industry is on an active search for and the development of such organizational structures. In the first half of this year three design and construction associations were created for the turnkey construction of apartment houses and social, cultural and domestic-services facilities in Surgut, Nadym and Almet'yevsk. Next is the creation of another series of such associations. A scientific, design and construction association for making engineering preparations for the construction of facilities for the oil and gas industry in West Siberian regions—Zapsibinzheneftegazstroy [Association for Making Engineering Preparations for the Construction of Oil and Gas Enterprises in West Siberia]—has been created on the basis of NIPIzheneftegazstroy [Scientific-Research and Design Institute for Engineering Preparation for the Construction of Oil and Gas Enterprises] and Nefteyuganskspetsgidromekhanizatsiya [Trust for Special Hydraulic-Mechanization Operations in Nefteyugansk].

Recommendations are now being readied for a master scheme for managing the branch in light of the new requirements.

At the same time, an analysis of the recommendations for restructuring the management structure that the production main administrations and associations submitted indicates that much of their work is being performed unsystematically and according to the prevailing rules.

In managing the construction industry, enterprises must be concentrated in the state production associations, which specialized by construction-industry subbranch and conversion must be made from the four-tier scheme of management of the construction industry in some main administrations to the three-tier scheme.

The state production association will be a huge production organizational structure of a new type, which was created on democratic principles and which operates on the basis of full economic self-sufficiency and self-financing, in accordance with the economic principles of the Statute on the State Enterprise (or Association). It will bear the whole completeness of responsibility for the work results of both the association as a whole and of its enterprises.

Exceptionally important in the system of measures for restructuring the control system is transformation of the structure and functions of the ministry's central staff, the basis of which is the functional principle of management. Right now the central staff consists of a large number of subunits isolated from each other, whose activity is directed in the overwhelming majority of cases at the

current solution of problems of construction operations and construction-industry production. The control structure is complicated and cumbersome, and the main administrations and trusts lack tools for economic influence. Enterprises often are exchanged for operating or economic control.

The structure of the staff is to be simplified considerably, intraministry bureaucratism is to be eliminated, and duplicative and weak elements are to be converted.

Functional subunits of the central staff must be strengthened (through a reduction in the number of elements of current control), after having segregated them into the following basic units: economic, scientific and technical, social development, supplying of materials and equipment and outfitting, and development of the in-house production base and the turnkey construction of facilities.

These units should function as a unified whole, work toward a final result, and be under unified direction.

The main content of the work of the economic services of the central staff and of the main production administrations and associations should be economic analysis, joint inquiry with trusts and enterprises, and the realization of effective solutions which will support intensification of the branch's economy.

As a result, the ministry's transformed staff should be a genuine staff for economic planning and for scientific and technical guidance of the industry.

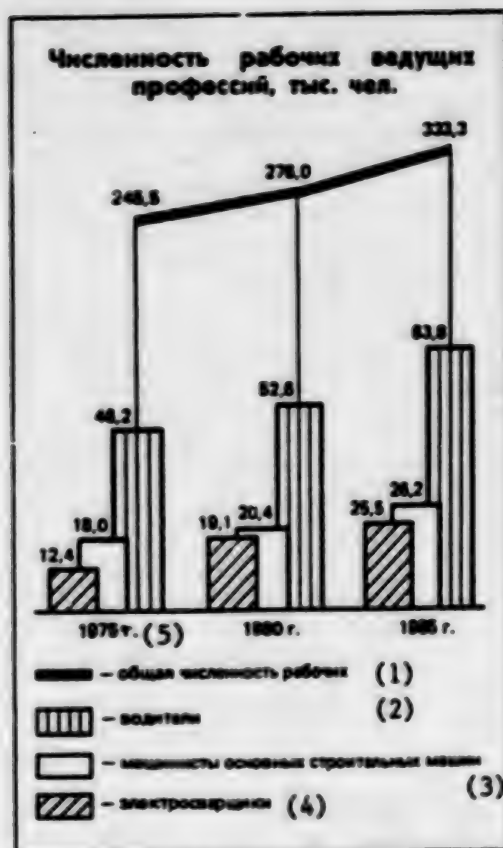
#### Legal and Personnel Support

Radical restructuring of control of the economy requires corresponding legal support for the new economic mechanism, abolition of the directives that are obsolete or come into contradiction with the new rules, and methodological instructions, statutes and other standard enactments that regulate production and economic activity and the mutual responsibility of the ministry's organizations and enterprises. Primarily the industry's jurists and economists, as well as its scientists, should accomplish this task.

The ministry has formed a commission for improving departmental standard enactments under the guidance of the ministry's first deputy.

Lists of departmental enactments that were issued during the period 1972-1986 have been made up. As of 20 September 1987, 154 of 1,295 existing standard enactments had been abolished, including 21 on technical matters, 34 on work and wages, and 14 on economic planning.

In order to convert successfully to the new methods of management, a set of measures for the economic retraining of personnel and a deepening of the vocational



Blue-Collar Worker Manning of the Leading Professions,  
Thousands of People

Key:

1. Total blue-collar worker manning.
2. Drivers.
3. Operators of the Basic Construction Equipment.
4. Arc welders.
5. Year.

economic knowledge of specialists at all levels of control must be implemented. The ministry's central staff, the main administrations and the trusts are to organize systematic teaching of supervisory workers and specialists about the new training programs. Workers of the economic services at all levels should acquire practical habits and skills in using computer equipment and in applying them in their own activity. The Institute for Raising Skill Levels, with the participation of other branch institutes and the economic services of the ministry's staff, should work out new curricula for the economic training of all official categories of workers of enterprises and organizations, taking the new requirements into account. The timely development and circulation of the necessary informational materials and visual aids for the industry's system of economic education for workers will be of special importance under these circumstances.

The tasks on restructuring the economic mechanism and creating an integral system for managing the industry

should be solved by the start of 1989. An effective system for controlling the process of restructuring the economic mechanism is required for successful and timely resolution of these tasks. The simultaneous special-purpose integrated program (TsKP) for 1988-1990 can be the basis of this system. Similar programs should be developed in eight main administrations and associations, taking their specifics into account. Progress in carrying out the branch's TsKP will be specially monitored by a workers' group that has been established. Each main administration, association, trust, industrial enterprise, and institute must define precisely specific steps for realizing the measures adopted.

#### Footnote

\*O korennoy perestroyke upravleniya ekonomikoy. Sbornik dokumentov. [Radical Restructuring of Control of the Economy. A Collection of Documents.]. Moscow, Politizdat, 1987.

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pp 1-7

[Article by G. I. Shmal, First Deputy USSR Minister of Construction of Petroleum and Gas Industry Enterprises: "Social Problems Need Maximum Attention"]

[Text] Attention given to solving social problems in the West Siberian region has been greatly intensified recently. The pace has risen and the amount of construction of facilities for housing, social and cultural purposes is increasing.

In 1986 the ministry basically coped with all the plan indicators for nonproduction construction in West Siberia. However, the required level for hospitals was not reached.

First quarter 1987 results for social-sphere facilities in West Siberia show that fulfillment of the strenuous plan is proceeding ahead of schedule.

Here are some figures. Under the plan for Mingazprom [Ministry of Gas Industry] of 102,600 square meters for the first half of the year, 128,000 square meters were built; under the plan for oil workers for 204,900 square meters, 224,300 square meters were introduced; while for the Ministry of Geology, under a plan for 22,000 square meters, 25,100 square meters were introduced. And this despite the fact that last year we did not meet the plan for the geologists, for which we were subjected



to sharp and deserved criticism by higher organs. Minneftegazstroy [Ministry of Construction of Petroleum and Gas Industry Enterprises] drew the necessary conclusions: it worked out and approved appropriate measures and monitored their realization.

For the in-house needs of the industry's organizations, 205,000 square meters of facilities for housing, social, cultural and domestic-services facilities were built, exceeding the plan indicators by 24,000 square meters, and it was 145 percent of the 1986 level. However, this is only 38 percent of the plan for this year.

In analyzing the state of affairs in the construction of facilities for the social sphere, it must be said that changes that were substantial and adequate in depth were made in this area.

Glavzapsibzhilstroy [Main Administration for Housing Construction in West Siberia] is stepping up the pace with confidence. After lagging recently on numerous line items, the collective is today carrying out almost a third of the nonproduction construction in the West Siberian region (278 million out of 1 billion rubles), providing for the introduction of 600,000 square meters of housing—43 percent of the whole plan.

The lag that was allowed in the construction of large-panel housing- construction plants during the 10th and 11th five-year plan is now being overcome. Capacity has been introduced at the Surgut Housing Construction Combine, a plant for making metal molds and rigging has been built, this year the Nadym Large-Panel Housing-Construction Plant and the Surgut DSK [Housing Construction Combine] will increase their capacity, the plant in Tyumen is being expanded, and a department for cemented particleboard and other facilities is being built in Vinzili.

New-series apartment houses and dormitories are being introduced, and kindergartens and other facilities are being erected. The main administration is actively resolving social problems, and a creative search for new engineering, technological and architectural solutions proceeds constantly. A fighting collective, which is executing restructuring not in words but in deeds, has been assembled here. There are still many problems in the main administration's operations. The plan for the first half of the year has not been met in regard to construction and installing work volume, including the construction of in-house production facilities. This work still is not proceeding well at the Tyumen DSK. But still, the collective is on the correct path.

The Surgut Housing Construction Combine is carrying out the plan for economic and social development steadily. Each year of the past five-year plan, this collective has been awarded the challenge Red Banner of the CPSU Central committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee, and has won the right to keep this banner in

permanent custody. The combine was awarded the banner of Minneftegazstroy and the industry's trade-union central committee for 1986 results.

The active work of the working collective's council, which is under brigade leader Vladimir Ivanovich Kozyr, aided in the solution of many production and social problems at this enterprise.

This year Glavtyumenneftegazstroy is introducing 400,000 square meters of housing. It has to its credit schools seating 6,072, kindergartens seating 3,730, hospitals for 570 patients, polyclinics for 900 patients, and other facilities. It has greatly improved the work of Surgutgazstroy [Surgut Trust for the Construction of Gas Industry Enterprises]: it is carrying out the program with confidence and is assuring a growth in volume. No few facilities that are pleasing to the eye have been built in Surgut by this collective, the industry's oldest in West Siberia.

At the initiative of finishing-workers' brigade leader Mariya Prokofyevna Poleshchuk of SUOR-50 [Specialized Administration for Finishing Operations No 50] of this trust, a large-scale socialist competition for fulfilling plans for the first two years of the five-year plan by the 70th Anniversary of the Great October Socialist Revolution was promoted at West Siberian construction projects and then throughout the whole branch. For a third of the five-year plan now this brigade has been working rhythmically. A cinema, a stomatological clinic, a swimming pool, five schools, and kindergartens have been built.

For a number of years, the integrated brigade of Hero of Socialist Labor Yu. P. Gotsina from the Komsomol-Youth Administration No 2 of Severgazstroy [Trust for the Construction of Gas Industries in the North] has been doing shockwork in the construction of housing.

The integrated brigades of Hero of Socialist Labor S. P. Rumyantsev from SU-17 [Construction Administration No 17] of Obneftegazstroy [Trust for the Construction of Oil and Gas Facilities in the Ob Region], M. K. Gayniyev from SU-52 of Urengoygazstroy [Trust for the Construction of Gas Industry Enterprises at Urengoy], and V. V. Kvashin from SU-3 of Tyumengazstroy [Trust for the Construction of Gas Industry Enterprises] and others, the winners of the All-Union socialist competition, achieved high results at nonproduction sphere jobs.

At the June 1987 CPSU Central Committee Plenum and the 8th Session of the USSR Supreme Soviet, paramount attention was paid to problems of social development. A set of measures that will enable improvement of the Soviet people's living conditions is to be executed, and the solution of important social problems is to be accelerated.

Minneftegazstroy's tasks for housing construction for the remaining three years of the five-year plan will exceed by far the figures of the five-year plan. Resources from the production sphere and from enterprise funds are being enlisted in large amounts for housing construction. The volume of housing-cooperative construction is rising.

At the same time it must be noted that there are still disproportions between growth in production and the formation of the social and domestic-services infrastructure of the oil and gas complex.

Not all of our collectives have overcome the inertia of the attitude that housing and facilities for social, cultural and domestic-services purposes are structures of second-category significance. For this reason bonuses were not awarded in 1986 to Lyantortruboprovodstroy [Lyantor Pipeline Construction Trust] and Yamalgazstroy [Trust for the Construction of Gas-Industry Enterprises on the Yamal Peninsula], despite the fact that, in terms of total number of points, they could have been among the leaders. There should be no compromises on this question.

Glavurengoygazstroy is marking time in the construction of social facilities. The amounts of housing introduced here have grown practically not at all. In 1986 the main administration did not cope with the task. During the first half of 1987, a school for seating 1,176 was not introduced. The erection of a large-panel housing-construction plant is proceeding unsatisfactorily and without enthusiasm.

The concern of Glavyamburgneftegazstroy [Main Administration for the Construction of Oil and Gas Enterprises in Yamburg] for housing-construction problems is completely inadequate. It declines to build brick dormitories with its own forces and, at the same time, trumpets continuously the shortage of housing and dormitories. It takes no steps to provide brick or to search for other materials. Nadym has become the industry's base city for the development of Yamburg, then also of Yamal, and it is a matter of honor for the main administration to make it the best city in the Tyumen North.

However, the heating system is being erected unsatisfactorily here now, and a boilerhouse is lacking. Despite the adoption of a decision, a second gas pipeline is not being erected. But indeed, without a reserve source for supplying gas, the city can be placed in a complicated situation.

Housing is being provided in Novyy Urengoy at 72 percent of the norm, in Noyabrsk 77 percent, Surgut 79 percent, Beloyarsk settlement 47 percent, Pangody 55 percent. Actual provisioning of it is lower since a part of the housing inventory is being used for a store, a pharmacy and other enterprises of the services sphere. Children's preschool institutions in Novyy Urengoy are 47 percent of the number required, Kogalym 48 percent, Noyabrsk 55 percent, Beloyarsk 33 percent, Lyantor 41 percent. The provisioning of schools is somewhat higher,

but in Surgut it is 54 percent, Beloyarsk 39 percent, Kogalym 71 percent, Novyy Urengoy 72 percent. Only in Megion and Pokachevsky is it within the norms. The provisioning of hospitals is lowest in Kogalym (21 percent) and Beloyarsk (24 percent). Highest among the cities is Nadym, and there it is only 68 percent.

The situation is better than for others in Surgut—85 percent. Here the active work of the Surgut Housing-Construction Combine, which in 1986 constructed a polyclinic for 1,600 patients from their own constructional structure, was telling. In Novyy Urengoy the polyclinics are only 27 percent of the required number, in Noyabrsk 37 percent and in Poykovskiy 9 percent.

What can be said about intensification of large-scale cultural and educational work if West Siberian cities are provided with no more than 50 percent of the clubs and cinemas (in Kogalym 9 percent, Novyy Urengoy 24 percent and Nadym 23 percent).

Matters are in the same fix with regard to facilities for domestic services, stores, and so on.

Authentic restructuring in regard to these matters is still far off. Meanwhile, the GUKS [Main Administration for Capital Construction], the Administration for Worker Personnel and Personal Services, and the trade-union committees continue to be passive.

The necessary measures should be taken to fulfill unconditionally the prescribed tasks for strengthening the material base of the social and cultural sphere. In this work we are counting on help from the soviets of people's deputies and party committees.

The number of the industry's workers whose housing conditions need improvement has practically not been reduced in comparison with 1985 and at present it is 68,300 people.

In order to raise the level of housing construction, its structure must be improved. The orientation of housing construction to the square meter, without taking into account the prevailing social and demographic situation, and also the peculiarities of using the expeditionary rotating-duty method, lead to ineffective use of capital investment. This is not the first year we have spoken about a shortage of dormitories and, primarily, about dormitories for young families, yet practically no measures have been adopted for increasing the amount of construction of this type of housing. The matter of an optimal collection of apartments in apartment houses under construction in the North requires study. And here, primarily the industry's sociologists and VNIIPK-tekhorgneftegazstroy should have their say. The Administration for Worker Personnel and Domestic Services also must participate actively in this work.

In Nadym, Urengoy and Surgut we are building four- and five-room apartments, although there are no large families there. In Tyumen a shortage of large apartments has been noted. These matters must be studied.

A large amount of the housing being erected in West Siberia goes to organizations that have been brought in. Builders of the Ukraine, Leningrad, Lithuania, Latvia, Estonia and Chelyabinsk are successfully coping with the prescribed tasks and are building up the volume of work. But on the whole, during the 11th Five-Year Plan borrowed organizations were in arrears 120,000 square meters of housing and nearly 80,000 square meters were not introduced in 1986. Builders of Moldavia and Armenia did not pick up the required pace. This year Uzbekistan's builders overcame last year's mistakes and during the first six months introduced 20,000 square meters of housing.

Housing and social, cultural and domestic-services facilities are being built completely unsatisfactorily by Glavreduralstroy [Main Administration for Construction in the Middle Urals] in Nyagan and by Novosibirsk builders and by Minenergo [Ministry of Power and Electrification] builders in Nefteyugansk.

Often the general contractors—our ministry's trusts—are at fault in the work of the borrowed organizations. Kogalymneftegazstroy and Noyabrskneftegazstroy did not turn over footings for borrowed organizations on time. Minneftegazstroy's assignment about the completion of operations by these and some other trusts in April was not carried out.

During the 12th Five-Year Plan the industry's workers must be provided completely with vacancies in children's preschool institutions. A specific assigned program on this question that is geared to specific locations, which will exceed greatly (almost 3-fold) the five-year goal set by USSR Gosplan, has been developed and is being implemented. Additional capital investment is being sought for the construction of kindergartens, of which we should build enough for 23,000 children in West Siberia alone.

In the first half of the year the task for the construction of in-house kindergartens for the ministry as a whole for 1,060 places, and for 690 places in West Siberia, was not carried out. Tomskgazstroy [Trust for the Construction of Gas Industry Enterprises in Tomsk] did not cope with the task for the first half of the year. The GUKS, just in May changed the goal for introduction is also at fault here, not having provided the facility with funds for equipment. Glavurengoygazstroy failed to introduce a kindergarten for 140 children in an auxiliary activity, as did Glavsibtruboprovodstroy in Sergino and Glavtyumenneftegazstroy in Karabash settlement. The attitude toward construction of in-house kindergartens must be changed, these construction projects must be given higher priorities than all of the facilities, additional

resources for constructional structure and brick must be sought, and questions of outfitting the facilities completely with equipment must be looked into.

Analysis indicates that in most of the industry's subunits no one is engaged in earnest in matters of providing kindergartens. Otherwise, how can one characterize the "social policy" of Glavtyumenneftegazstroy, which plans to introduce in 1988 a kindergarten for 280 children at Lokosovo, despite the fact that the problem of supplying children's preschool institutes for this settlement has been practically resolved. At the same time, there will be a shortage of kindergarten capacity in Nizhnevartovsk, Surgut, Noyabrsk and the village of Muravlenkovskiy, even at the start of the 13th five-Year Plan. Similar examples can be cited for Glavsibkomplektmontazh [Main Administration for Outfitting of Installing Operations in Siberia], Glavsibzhilstroy [Main Administration for Housing Construction in West Siberia], and Glavyamburgneftegazstroy [Main Administration for the Construction of Oil and Gas Enterprises in Yamburg].

Minneftegazstroy did not cope with the task for the first half of the year for introducing general education schools. Urengoygazstroy failed to introduce a school. And indeed the trust and the main administration as a whole did not have many introductions in the first half of the year and could have paid greater attention to nonproduction construction. However, this did not happen. Kazymgazpromstroy [Trust for Gas Field Construction in Kazym] failed to introduce a school. This facility is complicated, is made of brick, and will require a large amount of finishing work. But indeed this trust is well known for its skill in concentrating resources on facilities to be introduced, and at cutting construction time! This did not happen with the school. Obneftegazstroy and Tyumengazpromstroy trusts did not introduce schools.

The advanced experience of organizations in resolving social problems is being disseminated extremely slowly. How often have the brigades of I. V. Smirnov, V. K. Shcherbakov and others, who have achieved outstanding results in erecting social and domestic-services facilities, been mentioned at board meetings, conferences and in the pages of *Stroitelstvo Truboprovodov*.

Analysis of the work of I. V. Smirnov's brigade showed high effectiveness in the flowline construction group for organizing the construction of nonproduction facilities. Labor consumption in erecting 1 square meter of housing in I. V. Smirnov's brigade is less than 16 manhours, which is close to the indicators of the average housing construction combines.

The NOT Neftegazstroytrud [Scientific Organization of Work for Oil and Gas Construction Work] Center should be studied by each main administration, and at least one integrated brigade for erecting social and domestic-services facilities turnkey style should be created in each.



Some supervisors of economic and trade-union organizations are manifesting a disdainful attitude toward the most vital needs of people. Such a severe social problem as the resettlement of workers from temporary buildings is being solved poorly. This has been noted especially in Noyabrsk, Novyy Urengoy and Nadym.

A high-capacity base for the branch's construction industry has been concentrated and is being developed in Surgut. All the prerequisites are here for bringing the volume of construction of in-house housing up to 100,000 square meters in 1988. However, in the first half of 1987 only 20 percent of the planned number of families received permanent housing. Matters are going unfavorably with resettlement in subunits of Glavyamburneftegazstroy and Glavurengoygazstroy.

The practice of selective demolition of dilapidated and temporary structures has taken root. This hampers monitoring and leads in some cases to repeat habitation of housing planned for demolition. In Nadym and Novyy Urengoy the housing construction program must be revised with a view to supporting resettlement from dilapidated and temporary housing and to providing housing for workers arriving from the Pangody settlement and also those who are staying now at Yamburg. The amounts of housing construction in Beloyarsk and Komsomolsk settlements are not adequate for fulfilling the program planned.

Proper attention is not being paid to matters of creating the prerequisites for residence in youth dormitories. The existing dormitories, as a rule, are overcrowded, and both families and single workers are living in them.

More than 18,700 workers are in need of dormitory accommodations. The demand for Glavyamburneftegazstroy is 4,400 spaces, Glavtyumentruboprovodstroy 3,350, Glavurengoygazstroy 2,900 and Glavzapsibzhilstroy 2,600. Only 48 percent of the dormitories have club accommodations and rooms equipped for mass cultural measures. In 44 percent of the dormitories there are equipped buffets and dining rooms. Fewer than 10 percent of the dormitories have centers for combines for domestic services or rental.

Many towns and workers' settlements are in a state of neglect. The required concern for the amenities, improvement of architectural appearance, and the preservation and rehabilitation of the housing inventory are not being manifested.

A special review and an elaboration of problems with the quality and content of providing services and utilities is required. The modern city is not comprised of just housing boxes and wide roads but also small architectural shapes, newspaper stands, poster pedestals, advertising space and signs. We do have excellently shaped facilities: a children's village in Tyumen erected by

workers of Glavsibkomplektmontazh, a children's square in Surgut. But such an approach should become the rule and not the rare exception.

The newly created design and construction associations should give an example of creative and comprehensive approach to social-type construction projects.

Urengoy is a huge gas-recovery center—today it is the most uncomfortable and least attractive city in Tyumen Oblast. It is necessary to hold a special urban-planning council, enlist the country's best architectural forces, and plan a program for transforming this settlement into a modern city. Glavurengoygazstroy must take the initiative in this matter.

In order to build West Siberian cities and settlements in large volume, wooden housing supplied by USSR Minlesbumprom (Ministry of Timber, Pulp and Paper and Wood-Processing Industry) is used. The appearance of this housing and the sound and thermal insulation leave much to be desired. Design solutions for such housing must be improved, with special attention given to architectural expression. This includes Tura series houses and the producer, the Vinzili Plant for Constructional Structure and Parts.

Despite the enormous importance that Minneftegazstroy attributes to developing large-panel housing construction, the capital investment allocated in recent years has not been assimilated systematically. The mistakes of previous years are repeated. A promising, long-range plan for developing and reequipping the production base has not been made up, and plants are being rebuilt without qualitative improvement of technical and layout solutions for the apartment houses and social, cultural and domestic-services facilities themselves.

The first and most important task is to bring the capacity of completely outfitted-module type housing construction up to 1.2 million square meters by the end of the 12th Five-Year Plan. But this should not be a mechanical increase in capacity but a qualitative leap in both the design of housing and the technology of erecting it.

It is necessary to convert to the two-stage preparation of concrete, the use of superplasticizers, an improvement in keramzit quality, and an increase in the production of prestressed constructional structure. This will reduce the consumption of materials, primarily steel and cement.

The production of parts at plants with a simultaneous rise in the degree of factory preparation of articles must be greatly intensified. Conveyorized technology for producing reinforced-concrete articles will raise products output per square meter of production space by 18 percent and reduce labor intensiveness of its manufacture by 11 percent. However, the introduction of conveyorized technology is proceeding slowly, and the final curing method with reduced heat-treatment cycle is not being used.

Organization of the production and installation of constructional structure must be improved. In 1986 the introduction of economic self-sufficiency and the brigade contract amounted to 3 percent at the Tyumen Housing-Construction Combine, 48 percent at the Uray combine and 64 percent at the Surgut combine.

Automated control systems are being introduced poorly.

In order to improve housing design, it is necessary primarily to introduce rollfree roofing and grillagefree foundations, to convert the production of bathroom boxes to gypsum concrete, to organize the production of integrated slabs for attic coverings, and to provide colored finish for facades. It is desirable to equip kitchens with furniture and to sell it to the public by separate payment.

The problem of allocating credit to ispolkoms and ministries for housing construction with later sale of apartments to the population and the erection of dining halls, cinemas and other social and cultural facilities through personal savings must be solved with Stroybank.

The construction of cooperative housing is being conducted completely unsatisfactorily within the branch. Cooperative members must apply truly titanic efforts to legalize it. And then hikes in search of a contractor start. In the West Siberian region, cooperative housing is erected, as a rule, in violation of the norms for construction time, and it is of low quality, and has been built under obsolete designs and with a low level of comfort. This disgraceful situation must be ended quickly. A detailed program for cooperative construction, which identifies base-type cities, must be developed.

There are major oversights in shopping and domestic-services for the public. Interruptions in the sale of foodstuff and industrial commodities are frequent. Despite the fact that the commodity turnover plan of the URS [workers' supply administration] was carried out 103.2 percent in the first half of 1987, estimated meat consumption per capital has been reduced by 7.8 kg since 1986, milk by 13 kg, and the consumption of vegetables and fruits is not increasing.

Even at Yamburg, high priorities have not been assigned to providing workers with foodstuffs. This work must be radically restructured and the level of shopping services raised.

The solution of social questions is complicated greatly because of the irrational use of labor resources. The prerequisites for accommodating in northern cities and workers' settlements just the minimum number of workers needed for developing the oil and gas fields are not being maintained. There are deficiencies in organizing the rotating-duty method.

In the first half of 1987 about 101 percent of the planned number of workers were at work in construction and installing operations and in industrial production. In so doing, fulfillment of the plan for linear construction was 106 percent, for surface construction 104.4 percent. Thus we have managed not to enlist additional workers. This speaks well about advances in use of the work force, which is explained by the introduction into construction of the economic self-sufficiency mechanism, which has started.

It would seem that the conditions exist for improving living conditions. However, a number of subunits in West Siberia are not engaged fully in the repair of housing. A comprehensive technical survey of the housing inventory is not being conducted. A supply and equipment base for municipal and repair services has not been established, and a system for planned preventive maintenance for housing has not been introduced. The transfer of the departmental housing inventory to the books of the local soviets of people's deputies is not being executed satisfactorily.

Cultural and domestic-services institutions are called upon to play an important role in personnel retention. However, even here there are numerous deficiencies. The materials base for club-type institutions and sports structures is not being used fully. Amateur initiatives in mass cultural work are being developed slowly. A number of clubs, Cultural Houses, libraries, and gymnasiums are in an extremely neglected state.

For example, in January 1987 the heating system in the House of Culture of the regional production-transport association of Glavtyumenneftegazstroy, which is located in Antipino settlement, went out of operation. Heat was supplied only in March, but repair of the building has not been undertaken. Since the moment of introduction into operation in 1979, the House of Culture has not been outfitted completely with furniture and paraphernalia. The library has 13,000 books but, because of the lack of common shelves, about 10,000 books have been dumped on the floor. How long do Glavtyumenneftegazstroy supervisors intend to put up with such a situation?

The problem of providing sports structures, cinemas and clubs cannot be solved through traditional design developments and constructional structure in a short time. Industrialized designs, such as those from which three gymnasiums were built in Yamburg, must be used more widely. Each trust must build its own gymnasium, maybe two or three of them, before the end of the five-year plan.

Minmontazhspestroy [Ministry of Installation and Special Construction Work] is now developing designs for clubs and sports complexes that use light metal constructional structure. This year our ministry is receiving four such complexes. They must be quickly assembled and checked for suitability for the northern environment.

Some main administrations, trusts and industrial enterprises are not engaged in the construction of Pioneer camps, recreation houses, clinics and dispensaries. Many of them are taking decades to erect.

Northern subunits—Glavyamburgneftegazstroy and Glavvengoygazstroy—have taken the path of least resistance: they are not building their own camps but are making rental agreements. Each year about 40 camps for 8,000 people are rented. What do such services cost? It is not difficult to estimate: the rental for one space, with all the overhead and rental expenses, costs 1,000-2,000 rubles per year. Here the economists obviously are not considering optimal options.

Much has been done in recent years in the area of providing blue- and white-collar workers with plumbing and domestic-services premises.

However, while we have achieved definite results in terms of quantity, upkeep of the facilities for production-facility amenities in some subunits does not stand up to criticism of any kind. For a long time supervisors of the Tyumen and Vinzili DSK's have not created normal sanitary and other amenities for workers. Despite the fact that each year we are advancing farther northward, we still have not developed a structure for mobile facilities for social and domestic-services purposes, including, baths, showers, lockers, laundries, places for heating food and for eating it, and driers for coveralls. A standards base on these problems is practically lacking.

One of the important components of the ministry's social program is reduction of manual labor. There is no inadequacy of the measures, of scientific, technical and specific-purpose programs, and of similar documents. However, until now, 116,000 people in the industry are engaged in manual labor, primarily in concreting, plastering, painting and roofing.

The certification and rationalization of workplaces can help greatly to reduce manual labor and improve production conditions. But the technical and other services of the main administrations act formalistically toward the conduct of this work. This situation must be corrected without delay. Standardization and methodological papers on this problem exist. They have been sent to construction organizations.

Introduction of the collective contract would promote substantial growth of labor productivity in the construction of facilities for housing, social, cultural and domestic-services purposes. It is planned to convert 15 out of 64 construction and installing trusts in West Siberia to the collective contract in 1987. In so doing, Glavyumenneftegazstroy plans to introduce the collective contract this year in two trusts alone, while, at the same time, it is proposed that 13 trusts be converted to this method only

in 1989, including Surgutgazstroy and Tyumengazstroy trusts, which are doing substantial amounts of housing construction. This is unacceptable. This work must be completed in 1988.

Improvement of the economic mechanism in construction is accompanied by a search for new organizational structures. Glavzapsibzhilstroy has created two design and construction associations (PSO's). The purpose in creating them is to provide for the construction and turnkey turnover, during the first stage, of apartment houses and facilities for cultural and domestic-services purposes, and then of completed urban-development complexes (microrayons and tracts).

It is proposed to transfer to the PSO's the designers and organizations engaged in engineering preparations for construction. The problem of including transport and machinery in the PSO's must be reviewed.

The creation of a PSO at Surgut will require a review of the functions of the Glavzapsibzhilstroy trusts that are working there. It can make sense to transfer to these trusts and to Urengoygazzhilstroy some amounts of housing construction with the participation of organizations that have been brought in.

Successful execution of the program for housing and for social and domestic-services construction is the decisive prerequisite for a steady uplifting of the labor and political activity of the Soviet people, a rise in production sophistication and effectiveness and work quality, an acceleration of scientific and technical progress, and a further growth of the people's welfare.

Exhaustive measures must be taken to fulfill unconditionally this program and to establish daily monitoring of its realization.

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#### Development of Gas Industry Complexes in Central Asian Republics

Moscow STROITELSTVO TRUBOPROVODOV in Russian No 11, Nov 87 pp 14-16

[Article by V. M. Tovarovskiy, G. D. Kuptsov and L. S. Dubrovskaya of Glavvengoygazstroy [Main Administration for the Construction of Oil and Gas Industry Enterprises in Central Asia] (Tashkent): "Participation in Development of the Gas Complex of the Central Asian Republics"]

[Text] The Central Asian part of the country has achieved substantial progress in economic and social development during the years of Soviet power. The builders of facilities for the oil and gas industry have made a meaningful contribution to the creation here of a high-capacity industry.



The start of intense development of the recovery and transportation of gas in Central Asia was the laying in the 1960's of what were at the time the hardest gas pipelines—the Bukhara-Samarkand-Tashkent-Alma-Ata and Bukhara-Central Asia-Central Economic Region pipelines. The collective of builders of the oil and gas trunk lines began to be formed at these construction projects, and experience in the erection of large-diameter pipelines was born. The new technology passed its tests here.

Minneftegazstroy [Ministry of Construction of Petroleum and Gas Industry Enterprises] collectives based in Central Asia have laid high-capacity trunk lines not only in the lands of this region but also in the country's North—they erected the Komsomolsk-Chelyabinsk and Urengoy-Chelyabinsk gas pipelines, and they also participated in resolving general construction tasks and helped to restore the cities of Gazli and Bukhara after earthquakes. In Gazli 50,000 square meters of living space were turned over for operation in a short time.

Glavsredazneftegazstroy, which was established in 1983, is a Minneftegazstroy subunit that is equipped with modern machinery. It has to its account such pipelines as the Khavast-Fergana, Gazli-Chimkent, and Chimkent-Tashkent lines, installations at the Shurtan field, the Mubarek gas refinery (see photo [not reproduced here]), and other facilities.

During construction of the Shurtan gas-condensate field, the main administration's builders created capacity for scrubbing gas of hydrogen sulfide by the zeolite method, which was used for the first time in our country.

In erecting trunk pipelines, the automated electric-arc welding of overhead welding by highly productive Styk-04 complexes is used. The BTS-142V pipewelding base is used for welding arriving pipe into sections.

The outfitted-module method is used widely during the construction of terminal compressor and pump stations. By the end of 1990, the main administration's organizations should bring the construction and installing work volume carried out by this method up to 70 percent.

During the first year of the 12th Five-Year Plan the main administration's organizations performed construction and installing operations worth 183.9 million rubles, which exceeds the plan goal. The profit plan was fulfilled 140 percent, and the prime cost of production was reduced by 6.5 percent. The level of industrialization of basic operations rose. More than 20 types of new, highly productive equipment were introduced. The amount of work performed in 1986 with the use of large-size components and parts was 127 million rubles' worth. The fleet of load-lifting machines and mechanisms began to be used more effectively, and the degree of equipping with small-scale mechanization equipment rose greatly.

Innovators made a great contribution to reduction of the prime cost of construction work. They put into production 198 innovators suggestions with a total economic benefit of 864,000 rubles. Among the best innovators were electric welder Zh. Gilfanov, foreman A. Shleynin, blacksmith F. Zinatulin, and others.

In competing for a worthy greeting for the 70th Anniversary of the Great October, Glavsredazneftegazstroy collectives did everything necessary to carry out the plan for the first two years of the five-year plan, to put into operation the Chimkent-Tashkent petroleum-product pipeline and an installation for obtaining sulfur at the Mubarek Gas Refinery, and to complete erection of the linear portion of the Gazli-Chimkent gas pipeline. Many workers and subunits are in the vanguard of the competition. Among those who continue the traditions of the generation that stood at the origins of oil and gas industry construction are N. Azaryan, N. Moroz, I. Yefremov, A. Sheykhislamov, D. Kamalov, S. Yesberginov, A. Kurbanov and Yu. Raykhner. Collectives of SU-5 [Construction Administration No 5] of Bukhara-gazpromstroy [Trust for the Construction of Gas Field Facilities at Bukhara] and the production combine for motor-vehicle transport have been inscribed on the Honor Plaque of the UzSSR VDNKh [Uzbek SSR Exhibition of Achievements of the People's Economy]. The builders of Mubarekgazpromstroy [Trust for the Construction of Gas Field Facilities in Mubarek] and of SMU-8 [Construction and Installing Administration No 8] took prize places in the Minneftegazstroy socialist competition.

An analysis of the fulfillment of technical and economic indicators by Glavsredazneftegazstroy subunits since the start of the 12th Five-Year Plan testify to the presence of large internal reserves. They must be used more quickly.

At the center of attention of the main administration's collectives is the restructuring of work on realization of production, economic, and scientific and technical plans.

The main engineering-technology center of the main administration was called upon to become an Orgtekhstroy [State Trust for the Industrialization of Construction], which was formed at the end of 1986. During the first six months of 1987 the trust developed a PPR [work plan] for the construction of production facilities (the Zhuan-Tyube compressor station, the Pavlodar-Chimkent oil pipeline, and others), and also of housing and facilities for cultural and domestic-services purposes. However, the trust's activity still does not meet modern demands, and has not been adequately coordinated with the work of production subunits, and is poorly directed toward achieving final results and toward the practical solution of economic and technical tasks. It is primarily the production workers who will judge how successfully

the Orgtekhstroy copes with the assigned tasks. Only by the introduction of developments and by the benefits obtained can the trust prove the necessity for its existence.

In the matter of restructuring, improvement of economic-planning work and of the system for planning and increase in the amounts of contracting work will play a major role. Unfortunately, the design and budget-estimate documentation from the clients often arrives late and is of low quality. Irregular delivery of equipment and the absence of design and budget-estimate documentation for the two-year volume of construction work prevent normal planning and lead to the failure to meet deadlines for the introduction of facilities into operation.

The builders are now ready to convert to the turnkey erection of facilities. For this purpose, design and outfitting organizations must be transferred from the clients to the general contractor. To this end, the main administration is creating services capable of carrying out with their own forces most of the stages of general-construction design and of construction, including outfitting of the construction project with equipment and materials, the client's shipments, and the startup and setting up operations, with turnover of the finished facilities. We have today the basis for considering that the work of Uzgiprogaz (Uzbek State Institute for the Design of Gas Industry Facilities) could be more effective if it were under the jurisdiction of the builders. The linking of the design and construction processes will enable the client to have greater possibilities for improving the operating services, and enable the contractors to introduce new equipment and advanced technology into production in more timely fashion. All this will promote a reduction of the investment cycle in the construction of oil and gas industry facilities.

In order to increase the personal motivation for each person toward overall results, Glavsvredazneftegazstroy has undertaken to convert its subunits to the collective contract. This was preceded by the gradual conversion at first of one consolidated integrated brigade, which consisted of 50 people, and then a section and two administrations. In 1988 all the main administration's subunits are to convert to the collective contract, in order then to convert the whole system to self-reimbursement and self-financing. The transfer to self-reimbursement and self-financing of organizations is a natural, necessary route, and the job is not simple for the main administration's subunits. I would like to note that people have the desire to work under the new system, at their own initiative and not on order from above, and to implement restructuring in all spheres of construction operations. Confirmation of this is the work of Construction and Installing Administration No 8, under Hero of Socialist Labor V. I. Bevzyuk. Two integrated flowline construction groups were established here, based on the principles of economic self-sufficiency. The builders are thrifty in their attitude toward the equipment and the

use of worktime. Great attention is paid to creating field settlements with all the necessary services. The construction of an in-house production base and the creation of a subsidiary farm and of zones for active recreation at Lake Issyk-Kul are planned.

In order to realize successfully the program for the 12th Five-Year Plan, Glavsvredazneftegazstroy should finish by 1990 the rebuilding of the production base in Bukhara with a capacity of up to 50,000 cubic meters of prefabricated reinforced concrete per year, of which 10,000 cubic meters will be for large-panel housing construction, and of a production base in Mubarek with a capacity of 12,000 cubic meters of ready-mixed concrete and 5,000 cubic meters of prefabricated reinforced concrete, and should finish construction of a complex of bases in Tashkent and a base for skelp.

In order to fulfill the program for social development, Glavsvredazneftegazstroy subunits have begun construction of their own housing in the amount of 67,000 square meters and of kindergartens for 420 children. The first phase of the Chatkal Pioneer camp for 160 children has now been introduced, and in the long term a second phase, for 240 children, will be built. It is planned to organize a year-round health center on the basis of it.

The main administration's subunits must use the monolithic housing-construction method more fully. Several years ago Bukharagazpromstroy erected the Zolotoy Kolos sanatorium in the Crimea and two-story apartment houses in Gazli by the movable-module formwork method of construction. Since then this progressive method has found the widest dissemination everywhere. The main administration, for reasons that are not clear, uses it almost not at all. Today the pace of monolithic construction must be built up in the Central Asian region, the more so since conditions for its development here are most favorable. Only then will it be possible to resolve the social task of providing a separate apartment for each family by 1991.

To introduce all that is advanced and effective more rapidly—that is the requirement of the times. In this connection, the role of each person in the guidance of production-economics activity is growing. The councils of brigades and teams and of other organs of self-governance should work only on the principles of glasnost and democracy. Through them, the right of each person to participate in the control of production and of social matters is realized in practice, and the unity of labor and politico-social activeness of workers is provided for.

The main administration's collectives are capable of great achievements. All their activity is aimed at seeing to it that each toiler becomes an active fighter for implementing the plan called for by the 27th CPSU Congress.

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**Pipeline Transport Development Examined**  
*Moscow STROITELSTVO TRUBOPROVODOV in*  
*Russian No 11 Nov 87 pp 26-32*

[Article by O. M. Ivantsov of Minneftegazstroy (Ministry of Construction of Petroleum and Gas Industry Enterprises): "The Development of Pipeline Transport"]

[Text] The concept of "pipeline transport" came into common use comparatively recently. In volume of freight haulage, pipeline transport long ago took second place after the railroads, not counting the transporting of chemical products. It is being developed truly precipitately. While freight turnover for all types of transport from 1970 to 1985 increased 1.8-fold, pipeline transport of gas, oil and petroleum product increased almost 6-fold. In the modern world, pipeline transport determines to a known extent the technical level of development of states. It influences directly the global problem of providing fuel and energy.

In Russia, the shipment of crude over pipelines was separated from its first recovery by an entire historical period. Homer mentions the use of oil in West Georgia in the 7th century before the new era. The source of the well-known "Greek fire" that the Greeks used in all their wars was oil recovered in Georgia.

Back in 1723 Petr I issued orders about the procedure for recovering oil. But the first oil pipeline in Russia, from the Balakhna field facilities to the plants of the Nobel brothers' company in Black City (Baku), 9 km long and 76 mm in diameter, was built just in 1878 by V. G. Shukhov.

During excavations of ancient Chinese settlements, pipelines made from bamboo, over which natural gas was transported, were found.

But modern gas pipelines appeared not until the 20th century. In 1942 the State Committee for Defense issued a decision to start construction of the Buguruslan-Kuybyshev gas pipeline, the first in the Soviet Union, and the Soviet of People's Commissars adopted a decree to start construction of the Yelshanka-Saratov pipeline. In October 1942, gas came to Saratov.

In connection with the celebration of the 70th Anniversary of the Great October Socialist Revolution, I would like to recall V. I. Lenin's participation in the formation of pipeline activity in Soviet Russia. On 17 March 1920 he signed the Decree of the Soviet of Workers' and Peasants' Defense about the erection of an oil pipeline

from the Emba petroliferous region to Saratov. Simultaneously, the laying of the Aleksandrov Gay-Emba railroad was called for. The combined construction project received the shortened name Algamba. V. I. Lenin had a lively interest in progress of the work on it. But in 1921 construction of the pipeline was cut short because of a shortage of 100,000 tons of pipe. And only in 45 years was the first strand of the Central Asia-Central Economic Region gas pipeline laid along the Algamba route. An interesting figure: at present about 20,000 tons of pipe is laid per day.

What is the physical, technical and economic basis for the rapid revolutionary development of pipeline transport?

Pipeline transport can rightly be called the transport epoch of the scientific and technical revolution, since it most logically blends into the fundamental principle of improvement of modern production. Unlike traditional types of transport, which is discrete in nature, movements over pipelines are continuous and therefore are qualitatively more intensive. And the fact that, thanks to a combining of the elements of route, propulsion, rolling stock and packaging, only the product itself being transported is moved, and it is moved at a fairly high speed, contributes to intensification; thus, gas recovered in Urengoy arrives in Moscow in three days. Pipelines are organically combined with various technological systems of suppliers and customers, a circumstance that precludes loading and unloading work, intermediate storage and handling of freight; integration of industrial production and transport is thereby provided for. These and other qualities of pipeline transport have defined its high productivity, economy, flexibility of control, a potential for full automation, safety, ecological purity, and so on. One cannot help but recall that the principal "technical solutions" for pipelines were developed by nature itself, which created the most complicated systems of capillaries in plants and blood vessels in man and animals.

The development of pipeline transport in the USSR has been an essential factor in the national economy's intensification. Primarily, the work of the country's transport system itself has been radically rationalized, and the productivity, economy and reliability of shipments of hydrocarbon raw materials and of fuel have been increased greatly. Thus, if there were no oil pipelines, the throughput of the roads would have to be increased by one-third, and, correspondingly, in expanding the railroad network, the fleet of rolling stock would have to be increased by 550,000 units and the number of servicing personnel increased by 650,000. And these are just those results which lend themselves to accounting, and let us note: they are not the largest ones.

As for gas, there is practically no alternative for pipeline transport.



It can be said without exaggeration that the development of pipeline transport has definitely exerted a revolutionizing influence on the country's economy. It has a great social advantage, since it precludes travel by operating personnel.

The prime operating cost and energy intensiveness of pipeline transport are one-third to one-fourth those of rail transport, while labor productivity is 10-fold to 13-fold greater. It is difficult to imagine development of the country's economy without pipeline transport. The geography of oil and gas fields (especially in West Siberia) and the great distance from the main consumers of oil and gas required the erection of long, large-diameter, high-pressure trunk lines. The average diameter of trunk pipelines is close to 1,000 mm, and their average length to the customer is 1,970 km.

The largest pipeline-erection program will be carried out during the 12th Five-Year Plan: 126,000 km of pipeline, 56,000 km of it being trunk lines.

Throughout the whole world, 1.45 million km of pipelines are being operated for the transporting of gas, oil and petroleum product. In 1986 the world's system was increased by 22,600 km of trunk pipelines, 10,000 km of which were built in the Soviet Union. Our country is building about one-third of the world program per year, with pipeline diameters of 1,220-1,420 mm predominating. The annual introduction of such pipelines has reached 6,000-7,000 km. The length that is cited for comparable conditions in terms of throughput of pipelines being erected in the USSR is 2-fold to 3-fold that of the U.S. and this length cedes but little to the length of pipelines introduced in all foreign countries. The main gas arteries built during the 11th Five-Year Plan are capable of transferring an amount of gas that will exceed consumption thereof in all the countries of European Economic Collaboration.

The erection of supercapacity gas pipelines 1,420 mm in diameter that operate at pressure of 7.5 MPa, which have no counterparts abroad, and of 1,220-mm diameter oil pipelines, defines the technical level of the new generation of pipelines. The power-engineering equivalent of supercapacity gas pipelines with a productivity of 32 billion cubic meters per year is 15.2 million kW-years. Thus, just one gas pipeline of this diameter exceeds in power a whole cascade of large hydroelectric-power stations.

In recent years multiple-strand systems of large-diameter pipelines have been created. The six-strand Urengoy-Central Economic Region-Western Border system, 20,000 km long, was built in 4.5 years and its productivity is 200 billion cubic meters. It includes 172 KS's [compressor stations] with a total power of 15 million kW. Let us recall, by way of comparison, that the

GOELRO [State Commission for the Electrification of Russia] plan called for the construction over a period of 10-15 years of 30 power stations with a total capacity of 1.5 million kWh.

The technical level of the oil and gas trunk lines is being raised continuously. Domestic piperolling plants have mastered the output of pipe 1,220-1,420 mm in diameter and made of steel with a strength of 560-600 MPa. About 700,000 tons of pipe with mill-applied insulation is being shipped per year. The machinebuilders have mastered the output of intermediate pump-station units with powers of 16,000-25,000 kW. The automation level has reached 97.8 percent at the compressor stations, 44.8 percent on the line portion. All the KS's are built with air-cooling equipment. The systems are equipped with radio-relay communications lines, and traps are installed on the pipelines for launching and receiving the cleaning pigs. The level of electrochemical protection of the trunk pipelines from corrosion is 98 percent. Underwater crossings are, as a rule, erected in the same diameter as the line portion, including 1,420-mm diameter pipe.

The degree of mechanization of the construction of intrafield pipelines has reached 89.3 percent, of trunk pipelines 99.8 percent. The power-worker ratio is 50-60 kW/person. The average unit capacity of the main construction machinery rose 8 percent during the 11th Five-Year Plan. The proportion of manual labor in line construction was reduced and is about 18 percent. A great achievement was the creation of domestic machinery for integrated mechanization of erection of 1,420-mm diameter trunk pipelines, but unfortunately not all of it is on a par with the world's best models.

By making tests at high pressure under a three-cycle scheme, the level of failures on existing trunk lines has been reduced to 0.41 per 1,000 km, the average frequency of breakdowns for the 11th Five-Year Plan being reduced 1.5-fold below that for the 10th Five-Year Plan.

The level of domestic design and construction enables the pipeline systems to be laid under the North's extreme conditions on a large scale and with parameters that exceed appreciably foreign parameters, and the average pace of construction is assessed as the highest in the world.

Minneftegazstroy's builders have mastered industrialized flowline construction of pipelines and the outfitted-module erection of compressor and pump stations. More than 60 pump and compressor stations are being put into operation each year.

The construction of gas-pipeline systems in single operating corridors is yielding great economic benefit. On the Urengoy to Central Economic Region alone it was 83 million rubles.

Now under construction is the huge Yamburg-Central Economic Region- Western Border gas-transport system, next is the Yamal-Zapad.

The benefit achieved can be increased still more through measures that will enable a reduction of the materials intensiveness of trunk pipelines. In order to decrease the metal intensiveness of pipelines, pipes made of high-strength steels, at the 650 MPa level (up to 700 MPa in the long term), will begin to be used in the next few years, and as a result steel consumption will be reduced to 50 tons per 1 km.

With a view to reducing gas consumption for in-house needs, which has reached substantial amounts, the efficiency of the turbines used at the compressor stations will be increased to 34 and 36 percent with a steam-gas cycle, and also the intermediate gas-pumping units will be converted to electrical drive.

Pipeline systems will be converted to remote control and to crewless tending, based on universal automation. In order to achieve a higher level of protection of the pipelines from corrosion, the use of mill-applied and base-applied insulation with high protective properties, of the automated high-powered cathode stations that are being installed at the compressor stations, of autonomous cathode stations, of elongated protectors, and of anodic grounds made of current-carrying rubber is being expanded. As a result, the highest level of reliability and safety of pipeline-system operation should be provided for. Any emergency or even irregular situation should be regarded as a ChP [extraordinary event]. In order to evaluate large-scale designs, a systems analysis that takes account of an assessment of the risk and the methods for reducing it must be performed. The pace of production operations, with provisions for guaranteed quality of all the technological operations performed, is to be increased still more. Along with improvement of resistance welding, laser and electron-beam welding will be used. A higher level of mechanization and automation is necessary when erecting the line portion and the pump and compressor stations. The latter will be assembled from finished modules shipped from machinebuilding plants. New sets of highly productive domestic machines for operation in the North will completely replace imported equipment.

The party's economic strategy calls for the further development of pipeline transport. The CPSU Program adopted at the 27th Party Congress reflects a qualitatively new role for pipeline transport in the development of social production, which is manifested primarily in the transformation of oil and gas supply systems—the country's leading pipeline transport systems—into a branch of the production infrastructure of the national economy.

At the end of the century and beyond the year 2000, a reduction in the amounts of construction of trunk lines for oil and gas is forecast. However, the amounts of work

on rebuilding the pipeline network will grow because of the aging of operating pipelines and the use of underloaded systems for other purposes.

In recent years pipeline construction at the fields has increased considerably, especially at oilfields, a fact that is linked with the development of a large number of new medium and small fields. While 56 fields have been developed during the whole existence of West Siberia's oil industry, during the 12th Five-Year Plan more than 90 must be developed. As a result, it is required that 70,000 km of pipelines be laid in the fields. A high level of construction of intrafield pipelines has been maintained for a long time.

The volume of erection of offshore pipelines also will grow continuously. It is known that a major portion of the world's hydrocarbon reserves are located in marine water areas; in the Soviet Union recovery is going on in the Caspian, Black and Okhotsk seas.

The first offshore pipeline in Russia was laid on the bottom of the Caspian Sea in 1914. A pipeline 16 km long joined Emba with the port of Bolshaya Rakusha. An important step in the erection of offshore pipelines was the laying in 1942 of the Okha-Komsomolsk-na-Amur oil line, with a crossing over the Nevelsk Strait. Since then many offshore pipelines have been built. But as offshore recovery of oil and gas increases, in compensation for its reduction on land, the laying of offshore pipelines is getting new impetus. This refers not only to growth in the amounts of construction but also to an increase in technical complexity, since the organization of recovery at the Kara and other northern seas is required.

The world has built up much experience in erecting offshore gas and oil pipelines. Each pipeline is designed for maximum productivity, which, considering the complexity of laying offshore pipelines of large diameter, is achieved through increase in pressure. In the North Sea the gas pipelines operate at a pressure of 16 MPa. The compressor and pump stations were built on platforms in the open sea. A three-strand crossing of the Algiers-Spain gas pipeline of 500 mm diameter and with a pressure of 20 MPa was laid by the Italian company Saypem in 1981 across the Mediterranean Sea. The length of the crossing was 430 km, the depth of laying was 600 meters. The pipelines were erected with the pipelaying barge Kastoro-6 at the rate of 1.6 km per day, the work ceasing when the wind speed was 135 km/hr. and wave height was 12 meters.

The most complicated special equipment is used when erecting offshore pipelines: plowlike devices for putting the pipelines deeper in the seabed that work in an automated mode, submarines for monitoring operations and also pipelines being operated, and much other equipment.

Each year a trend toward expanding the sphere of use of pipeline transport can be traced increasingly distinctly.

Just at first glance, take the unexpected example of the use of pipelines where new opportunities have been opened up for agriculture. This refers to sapropel, or lake silt, an extremely valuable fertilizer. It is deposited in shallow lakes and its reserves throughout the country are more than 30 billion cubic meters. It is estimated that the erection of pipeline systems up to 10 km long for transporting and applying sapropel to fields, taking into account the addition to the yield, will produce a net profit of 2.7 rubles per 1 ruble of expenditures. Construction of the first such system is planned for Yaroslavl and Tyumen oblasts.

In other cases pipeline transport takes part as an element in, let us say, the performance of construction work. Thus, the hydraulic fill of soil foundations and platforms during the erection of oil and gas facilities in West Siberia's swampy regions is truly a unique solution to the problems of erecting them. In the Middle Ob region, sand is widely distributed at a depth of 15-20 meters. A method that was developed for excavating the sand at these depths by hydraulic airlift will enable the delivery of soil along pipelines to be organized at comparatively short arms.

Thus, Nefteyuganskidromekhanizatsiya [Nefteyugansk Hydraulic Mechanization Trust] in 1985 sent 9.2 million cubic meters of soil over pipelines to construction sites, and by the end of the five-year plan its work volume will double. But this is only the start. The scale of operations on hydraulic transport and hydraulic fill of soil at construction sites and roads will grow continuously during development of the Middle Ob, Yamburg and Yamal fields. It is enough to recall that at Yamal the cost of a cubic meter of imported soil has been set at 70-100 rubles.

Pipeline transport is successfully mastering a new vocation: the delivery of solid materials: bituminous coal, ore concentrates and others. Twenty countries of the world already have pipeline systems for hydraulic transport of solid materials. Fifteen years ago the first industrial system for hydraulic transport of ore began to operate at Norilsk. Since 1983 a pipeline system for sending ore concentrate to Stary Oskol has been operating successfully. The transporting of ore concentrate will become an everyday matter for pipeline transport.

It is planned that one of the first of these systems will be the creation of a pipeline from Krivoy Rog to the Donets Coal Basin for the hydraulic transport of iron-ore concentrate, which can release a large number of rail cars per year and enable an annual economic benefit of about 8 million rubles to be obtained.

A central task is the development of pipeline transport for bituminous coal. Our country, because of objective conditions is most motivated toward its accelerated

development, since the USSR stands in first place in the world in the recovery and processing of raw materials and power resources in general, and particularly in terms of coal, ore concentrates, and raw materials for mineral fertilizers. It is precisely in the Soviet Union that it is necessary to haul these raw materials and fuels over great distance, from the places of mining or recovery to the customers. A production and equipment base is necessary for this, and it is lagging.

A more widely distributed system for the hydraulic transport of coal, which has been adopted in the U.S., calls for the grinding of coal and transport thereof in a mixture with water, with an estimated 50 percent coal and 50 percent water. Dewatering of the coal before sending it for combustion is done by the customer. We have adopted another technology, by which 62-70 percent finely ground coal, 30-38 percent water, and less than 1 percent of a special chemical additive, which provides the necessary consistency of the mixture for a long time, enter into a suspension. Special additives help to reduce the mixture's viscosity. The Institute of Colloidal Chemistry and the Chemistry of Water of the Ukrainian Academy of Sciences has developed inexpensive additives based on wastes of pulp and paper combines.

The water-coal suspension is sent by the customer directly to combustion without dewatering. Thus the question is posed about the creation of a new alternative fuel suitable for hauling by tankers and motor transport. The new fuel turned out to be capable of being burned at electric-power stations, in blast furnaces, in boilers, and even in the engines of transport equipment. With combustion of water-coal suspensions which contain up to 40 percent water, the calorific capability of the coal in the mix is reduced by only 2-3 percent. Part of the heat is expended on evaporating the water.

It is precisely such a technology that will be used to transport coal along the first industrial-test Belovo-Novosibirsk coal pipeline, 240 km long and 530 mm in diameter; it will go into operation in 1988. An experimental preparation of pulp with additives has been tested and successfully burned in Belovskaya GRES boilers.

Right now extensive and promising programs on the creation of systems for pipeline hydraulic transport of coking and steam coal to metallurgical combines and heat-and-power stations of the Urals are being developed. Despite ambiguous assessments of this program, calculations indicate that when it is realized tens of thousands of freight cars and 20,000 servicing personnel will be released. An even larger program on the creation of a Kuznetsk Coal Basin-Ural-Volga Region-Central Economic Region-Ukraine system for hydraulic transport of coal is in the development stage.



The use of pipelines for discharging industrial wastes—tailings—is of great national economic importance. Here is an untouched work front.

It should be noted that countries that have large coal reserves—the U.S. and China (with the help of American companies)—have developed designs for coal pipelines longer than 2,000 km and with a productivity of 10 to 40 million tons of coal per year.

Large machinebuilding companies of the U.S., Japan, the FRG, and Canada are studying possible directions and freight flows of our future large coal pipelines and concentrate pipelines with a view to proposing their own services for the delivery of all the technological equipment, pumps and fixtures. At the same time, Mintyazhmash [Ministry of Heavy, Power and Transport Machine Building] and Minkhimash [Ministry of Chemical and Petroleum Machine Building] are proving to GKNT [State Committee for Science and Technology], USSR Gosplan and the USSR Council of Ministers that equipment for pulp pipelines is not on their products lists.

Errors in developing gas-pipeline transport when it began to be developed at a rapid pace in the 1960's, and the 10-15 year delays of domestic plants in mastering the production of high-capacity gas-pumping units and shut-off fixtures for large-diameter pipelines, must not be repeated. The shortage was for a long time made up with purchased imports.

Highly viscous, heavy and "superheavy" crudes or asphalt, whose transport over pipelines (in the form of stable oil-water emulsions or with the use of heat) requires the solution of a new set of technological and construction problems, make up a major portion of the long-range reserves. The transporting of highly viscous heated crudes from the Russkiy and other fields through permafrost present special complexity. Heat-insulated pipelines of great length, including those combined with surface-laid lines, will appear.

Pipelines for transporting liquid sulfur come close to being in the same class. The development of fields of the Caspian oil and complex will enable 4.8 million tons of sulfur to be produced by 1990.

The transporting of liquid sulfur along pipelines for both domestic consumption and for export can prove to be the most efficient solution, but for this purpose, heat-insulated pipelines with en-route heating at a design temperature of +140 degrees C will be required. There are prototypes of pipelines for liquid sulfur in Saudi Arabia and the U.S. The Canadian firm Intkan has now proposed that Soviet organizations create an international association for transporting the liquid sulfur over pipelines.

The problem of converting to the construction of a new class of gas pipelines, 1420 mm in diameter, that operate at a pressure of 10 MPa, will be qualitatively new. In

northern parts of the Yamal it will be possible to dispense with the construction of intermediate compressor stations, for which it is difficult in these localities to find platforms and provide servicing. However, ambiguous assessments are being made about the desirability of using 10-MPa gas pipelines in designing a system of such lines from the Bovanenkovskoye and Kharasaveyskoye fields to Yamal.

In choosing the correct solution, it will be necessary to return to a technological analysis of the essence of transporting gas at various pressure levels. With increase in pressure the gas pipeline's wall thickness is increased, but, while a rise in pressure without an improvement in the metal's strength properties will not lead to a reduction in metal expenditures, neither will metal consumption increase as it will in the case where an additional reliability coefficient is introduced into the analysis of wall thickness. In the SNiP's [Construction Norms and Regulations], this coefficient is assumed to be greater for a pressure of 10 MPa than for 7.5 MPa. The thought is that, with increase in pressure, the danger of longer fractures grows. But in order to avert this danger, the document calls for a rise in the requirements for the impact elasticity of pipeline steel under 10 MPa of pressure, it being substantial: from 80 to 110 N m/cm<sup>2</sup>. Therefore, the increased reliability coefficient is an incomprehensible double insurance.

A relative rise in the productivity of a gas pipeline depends upon a reduction in the temperature for transporting the gas and an increase in pressure. For various gas temperatures (3-7 degrees C) at the terminal portion of Yamal's gas pipelines, and for the pressures of 7.5 and 10 MPa that are being compared, the relative productivity in the latter case will be raised somewhat because of a reduction in the compressibility coefficient. Because of the increase in wall thickness of gas pipelines under 10 MPa of pressure, the amount of welding and other operations on each strand will be increased, but, considering the reduction in the number thereof, labor intensiveness is reduced by 10-20 percent. A consideration of compressor-station construction introduces well-known corrections to this value. A reduction in the number of strands, especially under the North's extreme conditions, always should lead to a reduction in time for erecting the system, so the national economy's benefit from the additional supply of gas must be considered.

In general, the options can be compared and their effectiveness determined only where the design study is applicable to the specific conditions and not by the organization of endless commissions in which the most contradictory opinions are offered.

Various ways for intensifying pipeline transport are known: through reduction of the compressor-station intervals, the use of a low-head scheme for transporting and cooling the gas, and using AVO [air coolers] and machine-produced cooling. Thus, where the gas is transported at a temperature of -73 degrees C and a pressure

of 7-8 MPa, the gas line's throughput can be doubled. However, all the named solutions have their limitations and provisos, which need to be optimized.

The greatest benefit from intensifying gas transport can be obtained by converting it to a liquid state. At methane's critical temperature of -82 degrees C, the optimal temperature for transporting it by pipeline should be below the critical temperature: -100 to -120 degrees C.

Because of the low compressibility of liquefied natural gas (LNG), a pressure level of 4-5.5 MPa suffices. Because of LNG's high density, the fact that 1 cubic meter of it contains 600 cubic meters of gas under standard conditions, or 1 ton of LNG contains 1400 standard cubic meters of gas, gas pipeline productivity grows 3-fold to 4-fold. One cubic meter of LNG is equivalent to 6 million kWh of thermal energy. These figures show the great benefit from "packing" and concentrating the LNG's energy.

Installations for liquefying LNG are built at the head terminus of an LNG pipeline, and about every 400 km intermediate cooling installations are constructed. The pipeline should have heat insulation. Specific metals expenditures are reduced 3.5-fold to 4-fold, but more expensive highly alloyed metal is used for low-temperature pipelines. It has been established that, despite the substantial cost of complexes for reducing and cooling gas, 65-70 percent of the capital investment is spent directly on the linear portion of gas pipelines, 60 percent of whose cost is the cost of the pipe. Experimental lots of 1,020-mm diameter pipe for LNG, whose cost exceeded 1.6-fold that of ordinary pipe, has been manufactured.

LNG transport is effective for distances that exceed 2,000-2,500 km.

It must be noted that the effectiveness of low-temperature transporting of gas can be raised considerably by using the enormous amount of cold from customer regasification of gas for the chemical, petrochemical, and food industries, and so on.

Considering recent achievements of modern physics in providing for the superconductivity of ceramic materials at liquid-nitrogen boiling temperatures, there is great technical interest in the transporting of large amounts of electricity over cryogenic LEP's [power transmission lines] within pipelines in conjunction with the transporting of LNG at the required temperature level.

The operation of pipeline systems is associated technologically with the production and consumption of the products being transported, and it is concentrated in various ministries and agencies (Minnefteprom [Ministry of the Petroleum Industry], Mingazprom [Ministry of Gas Industry], USSR Goskomnefteprodukt [State Committee for the Supply of Petroleum Product], USSR Minenergo [Ministry of Power and Electrification], and USSR Minvudkhoz [Ministry of Land Reclamation and Water Resources]). Building them is another matter. A situation where the production of, for example, motor vehicles will become the responsibility of their users, seems improbable. Modern pipelines are no less complicated systems, and their creation requires high specialization and a substantial scientific and technical potential. Concentration of the whole investment cycle for the creation of pipelines in one set of hands also can be a base which is capable of providing for unity of engineering policy for pipeline transport and its accelerated scientific and technical progress, especially in new and promising areas. Minneftegazstroy has repeatedly advanced the idea of converting to the turnkey construction of pipelines. The design institutes Giprospekgaz [State Institute for the Design of Trunk Pipelines and Special Construction for the USSR Ministry of Gas Industry] and Gipronefteprovodstroy [State Institute for the Design of Oil Pipelines] have been transferred to Minneftegazstroy.

The Soviet Union is the generally recognized leader in pipeline construction. Pipeline transport's potential for intensifying the country's economy is enormous, and it must be managed correctly. The time has come to create a unified program for developing pipeline transport for the near and the long terms.

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11409

## PRODUCTION

### Excessive Paperwork Hindering Machine Builders' Creativity

18230019a Kiev *RABOCHAYA GAZETA* in Russian  
6 Feb 88 p 2

[Article by V. Semikin, deputy head engineer of the Sumy Machine Building Scientific Production Association imeni M. D. Frunze (Sumy): "Nothing Can Be Seen Beyond the Paper"]

[Text] The Sumy Scientific Production Machine-Building Association imeni M. V. Frunze is the leading enterprise in the branch. Here they manufacture compressor stations for intensification of the extraction of petroleum and gas, their transportation along main pipelines, pumping equipment for atomic electric power stations, and centrifuges for the chemical and food industries. The items are fairly complicated and have important purposes. And because of this it is difficult to overestimate the role of the designer in the creation of new generations of machines and equipment that surpass the best world models.

What is holding up the development of new technical equipment today?

Each year the association assimilates 15-18 new kinds of block-batching lines, installations, sets of equipment, machines and other new products. And the designer must study the best foreign analogues and include their parameters in the plan. But, unfortunately, there is a large shortcoming in this method of evaluating design developments which is used at the present time. When designing we are oriented toward the achievements of the present day, but if one takes into account the fact that the cycle for creating machines and bringing them to the point of series production lasts, at best, 2-3 years, it turns out that a new item that is assimilated is essentially a thing of the past. How does one get out of such a situation?

Today the work for evaluating the level takes a great deal of time. Dozens of various documents, all kinds of service records, requisitions, and calculations of technical specifications are prepared. All this immense quantity of paperwork must be repeatedly coordinated with various organizations. And for what? Would it not be better to relieve the designer of this unnecessary red tape and concentrate his efforts on searching for original technical solutions that make it possible to create technical equipment of the future and not of the present day? As concerns all the organizational problems that arise when creating a new item—from the coordination of technical and economic parameters to the determination of the price—their solution should be the responsibility of three basic workers: the planner, manufacturer, and consumer.

Everybody agrees that the labor of the designer should be made really creative and he should be released from many of his fetters. But in practice....

Take just the system of state certification of products for two quality categories. This activity takes up a large share of the overall working time of the designer and takes him away from direct creativity for a long time. Our association, for example, now produces up to 70 percent of its products with the State Emblem of Quality. But in 1988 alone the plan envisioned certification of 21 items! In each case this requires painstaking work precisely on the part of the designers for drawing up and filling out the necessary documentation, obtaining and systematizing responses from consumers, and so forth and so on.

The imperfection and the cumbersome nature of the process of certifying products has already been recognized by its own author—the USSR Gosstandart. This department is now developing new provisions. We should like very much to get rid of unnecessary paperwork for, as practice has shown, certification has not become a necessary lever for improving quality and has little effect on raising the technical level of industrial items or their ability to compete.

For many years our country has been following a course toward global standardization of practically all parts of the national economy. It encompasses literally all kinds of products for production and technical purposes, beginning with the types and basic parameters down to the very smallest individual elements. In other words—and this must be simply recognized—an attempt has been made to include in a unified measurement system the actions of any participant in the production process, from the worker to the director. But, after all, people differ just as production conditions and life itself do.

This is why, it seems to me, we have already gone too far here. The existence of an excessively large assortment of normative documentation—up to 200,000 standards!—especially for individual small elements does not make it possible to encourage a creative attitude toward work.

The state standard, in my opinion, should determine the basic directions for the development of technical progress and with respect to machine-building products it should establish the main technical and economic parameters of the items. Moreover, and this is especially important, not those that have been achieved at the present time either in our country or abroad, but more progressive ones, which are higher than the world level, and will be appropriate for the future. The GOST is called upon to constantly remind the designer that his main duty is to look to the future.

A significant impediment to the creation of equipment with highly effective parameters and progressive indicators of proportional metal-intensiveness, energy-intensiveness, and labor-intensiveness is the pernicious practice of coordinating the applicability of batching items



during planning. In machine building the technical level, the innovation and high operational qualities of new materials and batching items—electric engines, bearings, hydraulic equipment, and so forth—largely determine the level of the basic item. But here comes the next paradox. The designer is obliged when designing a new machine to include in it the most advanced technical solutions. But he cannot do this since production will not accept the blueprints without protocols of the coordination of the applicability and the delivery of individual materials and basic batching items!

Up to this point there has been a strict rule for coordinating the application of nickel-containing steels and nonferrous metals with the USSR Gosnab; rolled sheet metal and forged pieces with increased durability specifications—with the USSR Ministry of Ferrous Metallurgy; titanium alloys and bearings—with the USSR Ministry of the Automotive Industry; hydraulic equipment and industrial rubber items—with dozens of branch scientific research institutes; and so forth. And all these authorities naturally give their approval for the application of only the product which has been manufactured in series for a long time! Under these conditions it is practically impossible to achieve the necessary increase in the technical level of design materials and batching items.

The situation is exacerbated by the fact that at any enterprise, including our association, it is difficult to update the "assortment"—the short list of materials applied in production—because of supply difficulties. This is explained by the existence of the so-called assembly norm, which is referred to by metallurgists, for example, when they accept orders under the condition of the complete loading of their equipment. Railroad workers insist on a minimum car transportation norm for dispatch. As a result of this, instead of 500-800 kilograms of corrosion-resistant or highly durable steel, which is necessary for manufacturing experimental models, we must purchase 20-60 tons. But under cost-accounting conditions such "injections" affect the finances of the enterprise, and the designers are forced again to search for ways of replacing high-quality materials with poor-quality ones, thus worsening the technical characteristics of the machines that are created.

Machine builders are especially upset by the relations with the suppliers of electrical equipment—plants of the USSR Ministry of the Electrical Equipment Industry—that have been established and have almost become the norm. Many types of electric engines do not meet modern requirements with respect to weight specifications, sizes, and especially vibration parameters. For example, the increased vibration of an electric engine, as a rule, is transferred to the machine as a whole and sharply reduces the length of its trouble-free operation.

Under the conditions of the operation of enterprises under complete cost accounting and self-financing plans for increasing production effectiveness become especially significant. They envision a reduction of labor-intensiveness and metal-intensiveness and savings on

basic and auxiliary materials. This work is very important and in our association, when evaluating the activity of design and technical subdivisions, it is the main thing to be taken into account. Moreover, it turns out that the basic source of savings on materials are design measures: the application of lightweight profiles of metal and plastics, the reduction of the thickness of the walls of parts, and so forth. Thus last year the plan envisioned that the association as a whole save 3,500 tons of rolled ferrous metals and 2,300 of these tons were to be saved by design subdivisions. And yet these assignments, as before, are established on the basis of the level that has been reached!

What does this practice lead to? To a situation where, even with all the immense state importance and necessity for economizing on metal, the designers deliberately take the pernicious path of including enormous reserves in the designing of machines both in weight specifications and in the labor-intensiveness of their manufacture. In other words, if a designer today were to include in a new machine all that is most advanced, tomorrow he would have nothing with which to fulfill the plans set for him for increasing the effectiveness of production! And this means that he would lose the right to obtain bonuses for his work. There is no need to explain the extent to which this vicious practice impedes technical progress.

The level of technological supply for production is of the greatest importance for the creation of new technical equipment. It is not without reason that well-known decrees of the party and government attach primary significance to the problem of technical reequipment of machine building. Our association has established fairly good contact between the designer and the technologist. As a rule, when a new machine is born they try jointly to introduce all the best that has been achieved in the association with respect to the level of technology. But, to our great regret, sometimes the very level continues to dictate the basic design solutions in planning. And it should be the opposite.

And another thing. Without experimentation the designer works literally "blindfolded" and he does not have the base he needs. We are now forced to load the basic production shops with orders for the manufacture of experimental components and mockups. Such orders are pushed through with great difficulty. This is why the technical documentation for the manufacture of basic industrial models of new technical equipment is turned over to production actually without testing. The result is simple: mistakes, incompleteness, and prolonged processes of bringing the proposed designs up to the proper condition.

It is necessary for every large association or enterprise to have its own experimental testing base. Moreover, its work should be organized in such a way that it not only performs all the necessary experimental design work and tests the experimental components, but also manufactures the basic experimental industrial models of new

technical equipment and fittings and refines the technology. This is the way the enterprises of the Ministry of the Aviation Industry operate, and the best and most advanced experience must be introduced in all branches of machine building.

In order to achieve the creation of new generations of technical equipment in short periods of time it has long been necessary to change the attitude toward our design personnel. It is necessary to increase the role and significance of the designer, to establish a really creative situation in our bureaus, to relieve the creators of machines from excessive paperwork, and to introduce a well-thought-out system of material incentives for the introduction of highly effective developments—in a word, to release the creative process from artificial impediments.

11772

#### **Problems Facing Kiev Center for Training Tool Operators Described**

18230015a Moscow *EKONOMICHESKAYA GAZETA*  
in Russian No 12, Mar 88 p 15

[Article by V. Shloma, *EKONOMICHESKAYA GAZETA* correspondent, under "Restructuring and the Work-Force" rubric: "Who Will Help the Center?"]

[Text] We are speaking frankly when we say that it was no easy matter to find the USSR Minstankoprom Technical Maintenance Center among the labyrinthine little streets of Podol and Kiev's Old District. It is huddled in several rather dilapidated buildings. This is also the site of the educational center in which operators are trained to work on NC machine tools.

Perhaps there is no particular need to demonstrate the need to set up special training centers which could quickly provide a lathe or milling machine operator with the necessary know-how and concrete working habits needed to operate a state-of-the-art electronically-controlled metalworking complex. The importance of training a skilled work-force was emphasized at the February CPSU Central Committee Plenum.

As long ago as 1986, measures aimed at substantially improving the planning and organization of training and re-training workers on new equipment and production methods, at raising their skill-levels and improving their training methods, were defined in a CPSU Central Committee and USSR Council of Ministers decree. On literally the eve of 1987, Minister of the USSR Machine Tool and Tool Building Industry N. Panichev signed an order with 10 addenda defining a program to implement the above decree, with an attached list of responsible persons and pertinent time periods. It was pointed out that raising the skill levels and retraining the work-force to operate and service new equipment should be carried out in training centers, which should be set up in

affiliation with the ten regional NC machine-tool maintenance centers (TsTO's) already operating within the ministry. Provision was made for equipping them with modern equipment, building the necessary educational wings and rendering financial aid. The order of the Soyuzstankoremnaladka VPO [All-Union Machine Tool Repair and Adjustment Production Association] Chief Engineer V. Tarnovskiy, which was issued in February 1987 prescribed that 10 of these centers be organized by...1 January 1987 (?).

Unfortunately, almost all the points of the orders and decrees have remained on the paper. The training centers have not received the promised aid. As an example, take the fate of the Kiev center. We quote the words of its director A. Usikov, who began his account with something unexpected:

"We were practically left to our own resources. Right now, for example, our primary concern is how and where we are going to scrape together the money to pay our instructors' wages during the second quarter. The ministry allocated funds for only the first three months of the year. In accordance with requirements from above, we have presented our considerations concerning the center's structure, staff and financing. But we've received no reply yet."

"What are you going to do?"

"Obviously, we'll have to 'extricate ourselves' by performing our primary job...."

Here we should explain that the TsTO's basic job consists of making NC machine tools operational, performing guaranteed repairs and programming electronically-controlled metalworking equipment. This work has brought in and continues to bring in the center's income forms its funds.

Of course it would be logical to augment this work with another service, i.e., training and retraining workers to operate up-to-date equipment which, by the way, is something the workers of the Kiev TsTO have long understood. This is why the order to set up an in-house training subdivision on our own base was received with understanding, and why, expecting no help from either the ministry or the Soyuzstankoremnaladka VPO, we began setting it up.

We began, as far as the collective was concerned, with the most complicated task—searching for the building we needed which, of course, had to be next to our production facility. Here, I should point out that the problem was solved fairly quickly: the city soviet of workers' deputies turned an old building over to the center. We were glad to have it; in fact the collective tried to do its job and began as long ago as last autumn to train workers from area enterprises in occupations related to

operating NC machine tools and robotics complexes manufactured by USSR Minstankoprom [Ministry of the Machine Tool and Tool Building Industry].

The school year began on time, our having practically performed a miracle: we repaired an extremely neglected building in just a few months with our own hands, and put not only educational classrooms but a training shop in it and squeezed two NC machine tools manufactured by Moscow's Krasnyy Proletariy into its limited space. And recently, with the help of the Ukrainian CP gorkom, we solved the student housing problem, since workers come here for training from all the republic's enterprises.

In a word, the Kiev TsTO's educational subdivision has begun operating, and has given 100-plus workers a new occupation. And we did it all ourselves, using money from our primary production work and with the support of local party and Soviet organs. And the stream of worker-retraining applications we have received shows how necessary the educational center is for the enterprises of the Ukraine's machine building complex. Actually, there are so many applications it is simply impossible for an "independent" educational subdivision to accept all of them. This year alone some 1,050 persons will learn new occupations here. The training of these workers is slated to continue through 1989.

They say everything is clear regarding the demand for these centers and the applications for training. It's just that prior to now the fate of a matter as important as the center's future has been vague. In other words, it seems more difficult for them to begin from square one, i.e. the status of the educational subdivision. The sectorial position says this about it: "Educational centers are part of the independent balance and have all the rights of a legal entity, including a press etc.". No such thing exists anywhere today. Just like financing, educational programs and methodological handbooks, the modern machine tools needed for hands-on training don't exist—the two machine tools we obtained from the Krasnyy Proletariy will soon be taken out of production. Another paradox is that metal-workers here have to master equipment, which has just been put into series production, faster than is humanly possible. Or else there's no sense in setting up this type of training center.

Specialists from the Kiev TsTO made frequent appeals to a number of ministerial instances. They gave well-reasoned proofs of the need to set up an industrial training association with its own affiliates in other oblasts of the republic. The association would be the de facto center with broad opportunities for demonstrating prospective metal-machining equipment and with a consultative facility where various units of equipment could be demonstrated in action.

A center such as this has two rights to exist. Moreover, it could become fully economically accountable [khozraschetnyy]. But it cannot come into being from nothing. Both the specialists of the Kiev TsTO and this sector's directors are fully aware of this.

So the saying that one has to wait for many years for promises to be kept is really true. The Kievans, it is true, are not waiting. Since the beginning, they took a course which would enable them to connect the educational process directly to production, and established economic contacts with many small-scale enterprises.

So funds are being sought. Thus, they are using their funds to design a training center building which will include a hotel and modern educational classrooms. They dream of soon installing a special wing where several dozen machine tools can be set up and where they will have an up-to-date production base which will simultaneously be a workers' retraining base.

And they write letters to the ministry proving the inadvisability of setting up four more similar educational subdivisions in the Ukraine, a move which cannot avoid scattering money and equipment and which will extend the time needed to set them up. You see, even the little practice the Kiev Educational Center has had in its work proves that it makes sense to set up a unique educational and production association based on the already-existing TsTO and its educational subdivision. All the more, since a similar system has already been tried out in Perm where the Yunost Training and Production Center is operating successfully.

All of this can be done, if only the many points in the published orders are carried out and money is allocated from the central ministerial fund, as stipulated in the above-mentioned documents.

The training center needs immediate help. Another confirmation of this was the recent arrival in Kiev of trade representatives of machine-tool building combines from the GDR whose mission it was to deliver a great many units of electronically-controlled metal-working machine tools to our enterprises. Here is the idea which was brought up at the meeting of the two countries' specialists: the presence of the already-operating training center makes it possible to talk about the opportunity for cooperation between enterprises in the GDR and the USSR on the plane of initiating production and servicing modern equipment and mainly—training workers. The GDR specialists could pass on the necessary know-how and working habits to the Kiev training center's instructors, who in turn could organize mass retraining of workers.

So, who will help the center?

12659



## MOTOR VEHICLES, HIGHWAYS

**Minister Examines Branch Restructuring**  
18290096a Moscow AVTOMOBILNYY TRANSPORT  
in Russian No 1, Jan 88 pp 1-4

[Article by Yu. Sukhin, RSFSR Minister of Motor Vehicle Transport: "Economic Restructuring of the Branch"]

[Text] Commencing with the very first days of the new year, our branch began operating under the conditions of self-financing and self-support. We already have on hand the initial experience realized from this work — this is the experience of enterprises which converted over to self-financing and self-support in 1987 and this experience indicates that the new managerial methods have earned strong positions in the branch's practical work and are furnishing reassuring results. The leaders at all levels are beginning to employ in a more energetic manner the economic levers and administrative methods and this is promoting direct improvements in the production results.

What are the results of the initial steps taken along the path leading to economic restructuring of the branch? First of all, improvements have been realized in the servicing of the national economy. An analysis of work carried out under the new managerial conditions, based upon the results for 11 months, has shown that all of the planned indicators were carried out throughout the branch as a whole. The rates of growth for transport operations were raised. The overall volume of freight shipments increased by 5 percent, including an increase of almost 4 percent in the income from passenger transport and on municipal routes — of 5.7 percent. Industrial enterprises sold 5.9 million rubles worth of products over and above the plan and the volume of domestic services furnished to the population increased by 10 percent.

However, a chief consideration was the fact that during this period contractual obligations were fulfilled and high rates of growth were achieved in the indicators of quality. More than 150 million rubles worth of above-plan profit were obtained. This made it possible to increase the funds for economic stimulation: the economic incentive fund was increased by almost 25 percent and the fund for socio-cultural measures — by 22 percent. The incentive funds were increased by 70 million rubles more than the amount planned and this made it possible to accelerate the construction of housing for the motor vehicle transport workers and to solve in a more rapid manner many other problems concerned with the social development of labor collectives. During this period, labor productivity in the branch increased by 5 percent. As is known, the average annual rates of growth for labor productivity during the last five-year plan did not exceed 1.5-2 percent.

These initial and reassuring results became possible owing to the fact that many labor collectives began displaying increased interest in the economic results of their work. The personnel began to monitor their expenditures closely, to achieve large and small economies and to find more efficient solutions for their economic tasks. Such an approach in carrying out this work is typical of the territorial associations: Gorkiy passenger, Perm, Tatar and Kemerovo freight. Over a period of three quarters, they have taken over the first places in the socialist competition.

Fine results were also achieved in 1987 by the collectives of the Sverdlovsk and Tambov territorial associations, Mosoblavtotrans and others, all of whom repeatedly earned first class positions in the socialist competition.

The success realized by the collectives of these associations was by no means accidental in nature. Here they learned how to link the material interest of each worker with the final work results of the entire enterprise and to make extensive use of the leading forms for labor organization, new equipment and the progressive technology for shipments.

The operational experience of the leaders of leading associations which employ economic administrative methods in their operational practice must become an object for study by other collectives. We must not overlook the fact that the initial results, obtained mainly as a result of obvious reserves, have aroused a sense of self-complacency among certain leaders.

The Saratov Territorial Association, which formerly served as the branch's standard, ensures the plan for freight shipments by only 84 percent, the income from municipal autobuses — by 77 and the task for growth in labor productivity — by 98 percent. The Ulyanovsk, Penza and Mordovian territorial associations are systematically failing to carry out the freight shipment volumes established for them with a growth of only 0.5-1.5 percent and Rostovpassazhiravtotrans is fulfilling its plan by only 95 percent. As a result of satisfaction with the initial results, the leaders of 44 territorial associations, during the first 6 months period, lowered the rates of growth in the volumes of freight transport and 52 — in the income from passenger transport operations.

There are many leaders who are stubbornly continuing to ignore the economic methods of administration, preferring instead to rely upon the usual administrative methods. Under the conditions imposed by restructuring, it will be difficult for them to realize an improvement in production efficiency. For example, what can we learn from the lag that has developed in growth in labor productivity at the Dagestan, Kaliningrad, Ryazan, Mordovian and Penza associations? As a result of their poor operations, the rates of growth in the volumes have declined throughout the branch as a whole and this is reflected in the growth in income and profit. In this

regard, 12 million rubles have been lost from the wage fund. Under the new conditions, there is a direct link between the production program and the overall well-being of workers.

Today the fund for wages, income and profit is directly dependent upon efficient use of the motor vehicle pool and its technical-operational indicators. And here the pool has its own reserves and shortcomings. Despite reorganization of the production service (the introduction of piece-rate wages plus bonuses for workers and the conversion over to an around-the-clock work regime during an uninterrupted work week), no sharp increase has taken place in the release of motor vehicles for operations. And it has even declined in some associations and this underscores the formal approach being employed in carrying out the work and the use of massive measures to the detriment of the major concern.

It is known that the conversion of the entire national economy over to a double and triple shift work regime is one of the principal elements for restructuring the economy. This is particularly intolerable in view of the fact that a deterioration is taking place at the same time in one of the chief indicators for intensity of use of the active portion of the fixed capital — the operating time for trucks and autobuses on the routes is declining.

The branch loses millions of rubles when a decline takes place in the coefficient of use for the carrying capacity of motor vehicles. Many of our territorial associations are guilty of allowing this to occur.

In speaking before a conference held in the CPSU Central Committee on 21 November 1987, M.S. Gorbachev made special mention of the fact that "the pivotal point of the second stage in restructuring is that of further democratization of society and the carrying out of a radical economic reform. This represents the main and key tasks of the present stage of development."

Thus it is in the interest of further continuation of the economic reform that the branch is being converted over to complete cost accounting and self-financing. This conversion must be viewed as the next and most important step in restructuring the work of motor vehicle transport and in expanding the economic methods of administration.

The essence of self-financing is such that associations and enterprises which have been granted complete independence in their economic activities, in conformity with the USSR law which governs a state enterprise, must not only carry out their obligations in behalf of the state and the budget but in addition they must earn the resources required for the formation of the funds for reimbursement, consumption and savings, which are capable of ensuring expanded reproduction. Our principal production element — an enterprise or association — stands in the very center of all of the economic and organizational measures undertaken by us. The USSR

law governing a state enterprise (association) calls for a maximum expansion in the rights of this element, the creation of more favorable economic prerequisites for its efficient operations and increased responsibility for the final result.

The new economic mechanism is aimed first of all at the observance of state interests, the complete implementation in the labor collectives of internal stimuli for development, the use by them of scientific-technical achievements, a savings in resources and a simultaneous increase in responsibility for the final operational results.

Today only state orders for the income from passenger transport in cities, for the more important shipments of freight and the principal nomenclature for industrial products are approved for enterprises from above, while the development of state plans for individual indicators is carried out by the labor collectives based upon control figures.

At the present time, economic norms have been established for the formation of wage funds, for the development of production and for social development. A need exists merely for determining the direction in which to work and the problems requiring principal attention, in the interest of satisfying first of all the needs of the customers and at the same time supplementing and accumulating the mentioned funds, with income and profit, as is known, serving as the source for their formation.

In order for the economic mechanism to operate in an efficient manner and stimulate an enterprise into utilizing its available reserves more completely, satisfying the consumers fully, utilizing scientific-technical achievements and economizing in the use of resources, the enterprise must be authorized not only to develop its own plans independently but also to approve them based upon the true social requirements.

Distinct from former practice, an enterprise is now held completely responsible for the results of its economic activities.

Unfortunately, many leaders of the branch's territorial associations lack the use of a constructive approach in operating under the new conditions. Judging by the draft plans for 1988, not all of them understand the essence of self-financing. Many associations have undertaken lowered shipment plans which quite often do not coincide with the customer requirements and adversely affect the material well-being of the labor collectives. At the same time, in view of the fact that the collectives are not allowed to operate under poor economic conditions, such leaders strived unjustifiably to overstate the five-year norms. They expected raised norms for the formation of funds, lowered withholdings for the state budget and increased capital investments and deliveries of motor vehicle equipment. And this signified an attempt to live well at the expense of other associations. At times

the leaders of associations, with the aid of local organs, attempt to create for themselves hothouse economic conditions for work, as is being done by Ryazanavtotrans. In order to overcome such parasitical tendencies, the ministry was forced to regulate growth in the production volumes using limits for the equipment, fuel and other resources.

It is to be noted with great satisfaction that there are examples of a directly opposite nature, in which the territorial associations are undertaking plans which are higher than the control figures for the five-year plan. The operational experience of the branch's enterprises under the new managerial conditions has already proven the intolerable nature of a parasitical approach. With self-financing, such an approach becomes simply unacceptable, since all of the additional resources required for implementing a program for production and social development can now be obtained only by improving one's work, that is, through growth in the volumes, a reduction in expenses and an increase in profit. Only in this manner will it be possible to ensure stable operations under the conditions of self-financing.

And here a tremendous role must be played by the human factor and by activation of the creative energy of the branch's workers. This requires further improvements in the brigade and collective contract and in intra-production cost accounting, as is being done in leading associations of motor vehicle transport. The new managerial conditions have made it possible to instill genuine material interest in each member of a brigade for the overall work results. At the present time, drivers are aware that the greater the earnings of a brigade, the greater will be their own wages. This is why the brigade contract and intra-production cost accounting are being employed on an increasingly extensive scale, a result which was impossible to achieve by means of numerous orders and instructions. This represents a clear example of the advantage offered by economic methods of control compared to administrative methods.

Special urgency is being attached to providing each brigade with specific production tasks and norms, such that each member of a brigade understands the direct relationship existing between growth in shipment volumes and wages. The fact that this is possible is borne out by the experience of many associations which mastered well the leading method of a brigade contract — Krasnoyarskavtotrans, Chelyabinskavtotrans, Chuvashavtotrans, Omskavtotrans, Mosoblavtotrans and Mosobipassazhiravtotrans. There was good reason for the collectives of these associations being classified among the best in the branch.

Such lively work as collective forms for labor organization cannot stand idle or move along a restricted track. The collective contract, which is now being employed by a number of enterprises throughout the ministry, represents a further development of the brigade contract. At Leningrad Motor Vehicle Combine No. 71, for example,

owing to the use of a continuous intra-production collective contract, more intense mutual responsibility was displayed by all of the services for their overall work results. This collective achieved considerable successes. With 750 motor vehicles at its disposal, the motor vehicle combine ensures fully the shipping of baked products for a city population of 3 million. In 1987, the Leningrad motor transport workers succeeded in raising labor productivity by 11 percent and they increased the enterprise's incentive funds by a factor of almost 1.5. Success was achieved in this regard owing to the fact that the motor vehicle combine maintained the use of motor vehicles on the routes at the level of 83 percent, with unproductive idle time being reduced by 40 percent. The leading experience of Leningrad Motor Vehicle Combine No. 71 is deserving of dissemination on an extensive scale.

The collective contract is also being employed successfully by Motor Vehicle Column No. 1510 of Mosoblavtotrans and Motor Vehicle Column No. 1796 of Mosobipassazhiravtotrans and at the Voronezh Motor Vehicle Combine and at other enterprises. The overall task of the branch's workers is to convert 80-90 percent of the brigades operating on a complete cost accounting basis over to the brigade contract by the end of the year. If it is to be introduced into operations on an extensive scale, the collective contract must be worked out fully at 2-3 support enterprises in each association. All of the ministry's subunits and the branch science must participate in this work.

Only upon the condition of material interest by each worker in the results of his labor will it be possible to earn the resources required for developing the branch. One source for growth in the incentive fund is the quality of the work carried out at an enterprise. Under the conditions imposed by self-financing, responsibility for quality will increase even more. A majority of the labor collectives are already aware of this relationship and thus the quality of transport services for the national economy and the population increased noticeably during 1987. This also applies to freight shipments (less than 1 percent of the contracts were not carried out) and passenger transport — here 97 percent of the trips called for in the schedule for route autobuses are being carried out.

Greater prestige is being attached to general use motor transport operations, a reduction has taken place in the number of complaints and millions of additional funds have been earned by the motor transport enterprises. The Perm Territorial Association alone, for example, has increased its material incentive fund by almost 500,000 rubles. Contractual obligations are being carried out here in a systematic and complete manner and the planned trips for autobuses are being carried out by almost 100 percent. As a result of having displayed concern for the quality of their work, other associations succeeded in



increasing their funds — Irkutsk, Tyumen and Gorkiy associations. Unfortunately, this has still not become a general rule throughout the branch.

Under the new economic conditions, each leader is confronted with the task of ensuring 100 percent fulfillment of contractual obligations, state orders and planned autobus trips using all available resources. In addition to improving transport services for the national economy, this is also making it possible to create the required funds. The quality of the work being carried out continues to be an urgent problem in passenger transport. Here, on the one hand, the work of motor transport affects the daily servicing for millions of Soviet people and, on the other, the material well-being of workers attached to passenger motor transport enterprises. Unfortunately, use of the state approach for improving the quality of transport services for the population has not been learned in all areas. Responsibility for quality will increase even more under the conditions of self-financing. This is recognized at a majority of the enterprises and it has made it possible to raise somewhat the quality of transport services for the national economy and the population.

One serious problem under the new work conditions is that of unprofitable enterprises. Certainly, there are objective causes for such unprofitability: increased costs for equipment maintenance and operational materials, with the rates for passenger transport operations in cities remaining steady. However, under the new conditions the operational experience of specialized passenger associations — Gorkiy and Moscow oblast — has revealed that unprofitability can be lowered substantially. This requires the organization of effective control over the completeness and protection of earnings, strict economies in the use of all types of resources and a reduction in expenditures. This is possible only with the energetic use of intra-production cost accounting at all autobus enterprises.

The growth in labor productivity achieved in 1987 made it possible to implement one very important economic and social measure — the conversion of enterprises over to the new conditions for wages.

New wage rates and salaries were introduced for 1.2 million branch workers. The new wage conditions have already been fully introduced into operations at 63 territorial associations. In the process, approximately 25,000 individuals have been made available for other work and a wage fund savings of more than 120 million rubles has been achieved.

The work concerned with preparing for this measure has become a fine economic school for the leaders of associations and enterprises and it requires a high level of economic knowledge on their part. The majority of enterprises that converted over to the new conditions for wages have achieved an improvement in production efficiency and growth in income and labor productivity.

At Kurganavtotrans, for example, the conversion over to new wage rates and salaries made it possible to realize an increase in income of 5 percent. Here, 340 individuals were made available for other work and average monthly wages were raised to 268 rubles per month.

However, not all of the association leaders understood the advantages offered by this conversion. Measures are not being carried out aimed at reducing the number of workers or raising income at Tyumenavtotrans or Omskavtotrans. Within some associations, there have been instances of the rates of growth in wages exceeding that for labor productivity. A requirement exists for strict daily control over wage expenditures at each enterprise.

The state can no longer tolerate excessive growth in wages. A normative ratio is being established between growth in labor productivity and average wages which will be controlled in a strict manner by the banks. It is established at the rate of 0.5-0.6 for freight ATP's [motor transport companies] and 0.7-0.8 for passenger and other enterprises engaged in servicing the population, with the exception of enterprises of municipal autobus transport. High rates of growth in labor productivity must be ensured in order to further raise wages and the issuing of bonuses.

The conversion of the branch over to an economic basis requires improvements in the administrative structure. Today we must commence the consolidation of small enterprises and the creation of production associations and we must carry out other organizational measures.

The general program for administration must call for a conversion over to a twin-element administrative system in place of the four-element system. The territorial associations of motor vehicle transport, which have been transformed into state production associations, and the large production associations of motor vehicle transport and independent enterprises and organizations included in their structure, will be subordinated directly to the ministry.

In the near future, it will become necessary to accelerate the creation of cost accounting transport-expediting enterprises, production combines and structural subunits specializing in the servicing and repair of motor vehicle transport equipment. In other words, the general program for administration must become more progressive than our branch is at the present time.

Without wasting time, we must commence work aimed at forming councils for the labor collectives at motor transport enterprises. A great deal depends upon the work performed by these labor collective councils. They must consist of personnel who are worthy, who are highly respected, who display high principles and who are very conscientious and highly skilled.

From the economic methods of administration we expect a high return and a savings in resources that will be needed during the next few years for modernizing the branch based upon extensive use of the achievements of scientific and technical progress. This is our long-term strategy and yet at the present time we are not authorized to relegate new equipment to second class status and we must introduce progressive technologies and leading methods for organizing shipments into operations on an extensive scale. We must not tolerate a situation in which neglect in the introduction of new equipment, under the conditions imposed by self-financing, results in a reduction in production efficiency. All of the principal trends in scientific-technical progress during a given stage in the development of motor vehicle transport must be utilized and taken into account in the annual plans for new equipment.

The work performed by cost accounting freight transport-expediting enterprises in carrying out loading and unloading operations and expediting work must be organized in an efficient manner. These enterprises must actually become very interested intermediaries between the customers and a motor vehicle enterprise and constantly study and become well acquainted with the shipping requirements of the customers. In the final analysis, the transport-expediting enterprises must undertake to provide complete transport services for the customers, they must themselves select the best shipping variants and they must submit their own recommendations to the consigners.

The branch is still not making full use of its own scientific potential. The proportion of the increase in transport work realized from the introduction of scientific developments barely reaches 20 percent instead of the expected 70-75 percent. The situation must change radically with the conversion of scientific organizations over to self-financing at the beginning of this current year. In the subject plan for NIIAT (State Scientific Research Institute of Automobile Transportation), general branch long-range developments will predominate and the remainder will be based upon works in accordance with contracts with territorial associations and enterprises for the direct introduction of scientific developments in behalf of the customer.

In the case of freight shipments, we are sustaining perceptible losses caused by above-normal idle time of motor vehicles waiting to be loaded or unloaded. An although we have thousands of loading mechanisms on balance, the majority of them are being operated at best only 2-3 hours daily. And this direct type of mismanagement is unacceptable under the conditions of self-financing. Efficient organization of the transport process and a strengthening of dispatcher control over the operation of motor vehicles out on the routes are considered to be chief considerations insofar as freight shipments are concerned.

Under the conditions imposed by complete cost accounting, the problem of freight shipment registrations becomes very acute. The transfer to the budget of unearned income results in a direct overexpenditure of the wage fund, a decrease in profit and a reduction in all funds, that is, it touches directly upon the material interests of each member of a collective. There is an effective means for combating this social evil — organizing shipments on the condition of paid motor vehicle ton-hours. However, many leaders are in no hurry to employ this method. In many associations, no attempt has been made to carry out this important work. This year up to 20 percent of the motor vehicle pool must be converted over to the method of paid motor vehicle ton-hours and this will serve to fully solve this problem.

The financial status of motor vehicle transport enterprises is largely dependent upon the ability of a collective to utilize resources, particularly motor vehicle fuel, in a zealous and thrifty manner. The all-round program for realizing economies in the use of motor vehicle fuel calls for the 65-70 percent increase in the requirements for fuel resources to be achieved by means of economies in these resources and a reduction of up to 13 percent in the proportion of expenditures for fuel and lubricating materials. This year the transport volumes carried out using gas fuel must be increased twofold and this will make it possible to lower the consumption of benzine by 15 percent.

Under the conditions of self-financing, an opportunity will present itself for solving urgent problems concerned with the branch's production and social development in a more rapid manner. A need exists merely for desire and ability on the part of leaders of all ranks to organize the work and to display enterprise and concern for their personnel. As yet, some leaders of associations are unaware that it is impossible to solve the tasks confronting the branch in the absence of the construction of a production base for the motor vehicle enterprises, housing and other domestic installations. The situation is particularly intolerable when the leaders neglect the social needs of their collectives and, despite a shortage of housing for example, fail to use the resources allocated for this purpose (Kostromaavtotrans, Rostovpassazhiravtotrans, Novosibirskavtotrans).

At the present time, our requirements for recreation bases and athletic installations are being satisfied at the level of 65 percent, kindergartens — 36, young pioneer camps — 33 and public health installations — only 7 percent. In some oblasts, such socio-domestic institutions are lacking almost entirely. Control must be exercised over housing construction and the volume of such construction must be increased by a factor of 1.5 and it must be doubled by the end of the five-year plan. Complexes of socio-domestic installations must be created. Towards this end, it will be necessary to increase sharply and rapidly the capabilities of the construction organizations and to develop in an intensive manner the economic method of construction in all of the territorial associations.

In a report dedicated to the 70th anniversary of the Great October, M.S. Gorbachev emphasized that "...the economic reform does not merely consist of plans and intentions or even abstract theoretical arguments. It is being implemented in a firm and thorough manner." Work carried out under the conditions of complete cost accounting and self-financing requires from each motor transport worker a maximum return from his creative talents and thorough knowledge of the economy and from the leaders — the ability, from a commercial standpoint, to solve the production problems and to display constant concern for their personnel.

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## RAIL SYSTEMS

### Construction Chief Examines BAM Tasks *18290091a Moscow GUDOK in Russian 13 Mar 88*

[Interview with Yefim Vladimirovich Basin, deputy minister of Transport Construction and chief of Glavbamstroy (Main Administration for the Construction of the Baykal-Amur Railroad), conducted by GUDOK correspondent T. Andreyeva: "BAM: Pre-Startup Concerns", Interview conducted in Tynda.]

[Text] Deputy Minister of Transport Construction and Glavbamstroy Chief Yefim Vladimirovich Basin answers questions put to him by Gudok correspondent T. Andreyeva.

[Question] Next year the entire BAM will be turned over for permanent operation. There's not much time left. Is there much work remaining?

[Answer] There's plenty to do. We have about a billion rubles' worth of work to complete in the time remaining. This is not as important as the structure and the character of the work. Our work has become more complicated and labor-intensive. It's a matter of constructing industrial and civil buildings and structures, getting the tracks into the necessary condition, electrifying the line, equipping it with communications-line equipment and STsB [railway signalling] and setting up a production base for the railroad workers. Moreover, in reviewing the engineering plan, we have increased the number of housing and social-cultural projects. In accordance with the new plan, BAM has become a billion rubles "more expensive".

[Question] But in turn, the reduced plan saved R2 billion. Is a billion really enough to solve the problems which have now arisen as a result of this unanticipated saving.

[Answer] Of course, we feel the R1,900,000 spent by the builders would solve all the problems easily. Here, we need to mention this factor: the norms for housing, kindergartens, schools and cultural institutions which were used when BAM was being planned were based on the average for the country. USSR Gosstroy has yet to review the norms for the BAM and West Siberian regions. You see, these regions are being settled primarily by young people. Population growth in this area is beginning to look like an "explosion". In 14 years, over 70,000 children have been born here. Some 1,500 have been born just in Tynda. Of course, there obviously haven't been enough kindergartens and schools built for them, even though the number built is 1.6-fold greater than called for in the engineering plan.

But I don't see the situation as an absolute dead-end. Mintransstroy and railroad workers changed over to self-financing and self-support as of the first of the year. True, the Baykal-Amur Railroad receives state grants, but I feel that it will start operating at full design capacity during the upcoming five-year plan period, and at a profit. Consequently, the railroad is showing its own profits, which we will use to build everything we need. Maintaining our present rate, we'll be able to provide all the railroad families with single-family apartments by 1995.

The construction workers' situation is more complicated. They've already lost a lot of time. But there is still hope. Where we built a total of 8,000 square m of housing in 1985 and considered this quite an accomplishment, last year we built 61,000 square m and still haven't reached our peak. This year we intend to reach a sacred figure: 80,000 square m. And if we can maintain this level for the entire period, all the construction workers will be living in comfortable quarters by the year 2000. True, we still have to earn the money to pay for this.

[Question] What has been changed by the transition to the new system of economic operation?

[Answer] There have been tangible changes. Prior to now, all selection conferences began with the question of how to fulfill the plan. This implied an assault on a notorious rampart, and engendered long-term construction projects. These days, we hold directors accountable for putting projects into operation within their deadlines, and require them to operate at a profit. The amount of construction and installation work completed by our subdivisions increased by 22 percent over the year before, labor productivity increased by 17 percent and wages by 8 percent. The main administration operated at a profit.

Without a doubt, this increase stemmed from the fact that all our trusts changed over to working on collective contracts. However, no advanced method is worth a



plugged nickel without painstaking economic and engineering preparation, without dependable material and technical supply and, finally, without the motivation of every individual person and the collective as a whole.

We have taken prompt measures. We have decided that it is sufficient for us to proceed with outstretched hands, and that we are going to develop our construction industry base. Of course, this is no easy task. Two of the largest combines—at Shimanovsk and Taysbet—are plagued with a Gordian knot of problems. They need to retool, and are short of skilled workers. But with all the shortages of more than three-fourths of needed materials and designs, and the personnel who were brought in from other regions of the country prior to now, we are presently producing here.

We are also thinking of the future. This year we are starting construction of a KPD [large-panel house-building] plant in Tynda which will manufacture a new series of houses. It will be capable of producing 140,000 square m of housing and 65,000 square m of social and cultural facilities per year.

Material supply is, of course, only one aspect of the matter. Second and equally important is deriving maximum yield from every ruble invested. Prior to now, our workers never thought about where their bricks or panels came from. And now they say bluntly: "These bricks are expensive; don't bring us any more of them." or, "Take this imported crane away from the construction site. We don't need it." In other words, we are taking an altogether different approach. They are learning to make comparisons. They feel more like they are in charge, and less like passive observers or dependants.

[Question] Isn't it obvious that these people, with their sense of being in charge, need to be managed in a new way?

[Answer] Certainly. As of the first of January, as I mentioned earlier, all our subdivisions changed over to full economic accountability [polnyy khozraschet], self-support and self-financing. We are starting to introduce a check system to keep track of expenditures. It requires fine-tuned engineering preparation and a multitude of calculations. We would like to handle the bulk of these calculations on computers. We have set up a temporary original collective and have gotten scientists and programmers on line. They are developing a system which will allow us to use construction estimates to draw up plans for SMP's [possibly: construction and installation subdivisions], trusts and even main administrations, and to determine necessary material and technical resources.

If we set this system up, and I hope we succeed, then later on we will be able to require that our planners put all data pertinent to labor outlays, materials and mechanisms on special magnetic tape. This is all the more important since we now have our own planners: they designed the Giprozheldorstroy Institute with affiliates

in Tynda, Severobaykalsk, Bratsk and other cities. This is a special project-planning and design and production institute with experimental shops in Dmitrov (near Moscow) and Tynda. This is where new mechanisms, methods and production procedures will be developed and tested. Generally speaking, this is where the basis for setting up planning and construction associations will be established. This will reduce the time from the initial surveys until the facilities are put into operation by 1.5-2 years.

Naturally, all this means that we have to improve our administrative mechanism. We have already taken the initial steps in this direction. The administrative staff of our subdivisions and main administration have already been cut back. The workload on our engineering and technical personnel has increased, and the demand has been made stricter, but their salaries have been raised as well. We are using communications equipment more extensively. We have set up an information and computer center network and have obtained a new computer with tremendous problem-solving potentialities. We plan to start up a material and technical supply subsystem. The work of our administrative personnel has gotten a lot smoother and more efficient: we have fewer meetings and less paperwork. There is more than enough bureaucratism. It is quite difficult to stamp out.

A questionnaire poll of Glavbamstroy workers was taken on New Year's Eve. Some 9 out of 10 workers confirmed that definite gains had been made in restructuring the work of the main administration. We discussed all their critical remarks and suggestions at a party meeting. The talk turned out to be concrete and of a principled nature.

[Question] You said that from here on out, putting projects into operation is one of the most important indicators. But are you operating as smoothly as always? Six months and more to get things restarted, and then what—storm work?

[Answer] I feel that "December the 32nd" has sunk into oblivion. In previous years we usually only turned projects over by significant dates. If we fulfilled our obligations, we were heroes. All that has changed. Last year, for instance, we turned over a 180-km section of the Severobaykalsk-Uoyan line to the state commission in September and the Ust Nyukzha-Khani section in October, before the onset of the freezes. This was an opportunity to get these projects ready to be turned over with a higher degree of quality without having to resort to storm work. All the schools and a good many of the kindergartens were opened in the first six-months, and 30 percent of the housing was ready for occupancy before 1 October.

[Question] This year the Uoyan-Angarakan line is to be electrified in the second quarter and the Khani-Chara section—in September. The total length of these sections is 250 km. How are things going here?

[Answer] Naturally, we are experiencing difficulties. Thus, the Buryat area section is extremely snowbound. The snow is over a meter deep in places, and won't thaw until the beginning of June. There is little time left for road-bed and finishing operations. But we began preparing to turn the line over as long ago as last year, so there should be no interruptions.

Chara Station is causing some concern on the second start-up section. It is being built by bosses from Kazakhstan and they're not coping with the plan. The Chara projects are solid: a 1,280-place school and a 230-place kindergarten, several 5-story apartment houses, a large boiler house, sewage-treatment facilities, tens of km of exterior supply networks. The main problem is the shortage of equipment. Gosplan and Gosstab are somewhat less than enthusiastic about supporting our initiative on choosing the best dates to put projects into operation, and consequently, on the extreme smoothness of the construction conveyor's operation. They continue to allocate equipment during the turnover year, and in equal amounts for each quarter at that. This means that some of the fixed capital goes for the fourth quarter. There is no other way to set up direct contacts with the supplier plants and to get rid of the expeditors. Otherwise, we'll see a repetition of last year's story, when the last units of equipment were sent and installed just prior to the arrival of the state commission.

We understand that the problem of supplying construction projects with all their production equipment needs is one of the most acute problems facing the country as a whole. But something else is obvious as well: the investment cycle will never be reduced until this problem is solved.

[Question] It's a curious situation: the builders are trying a new way of working, but are being hindered by those who should be their most ardent supporters. Isn't this probably an exception?

[Answer] Unfortunately, it isn't. The geography of our activities has been expanding recently. Builders are also working on projects associated with developing the BAM area. For example, laying the new Berkakit-Tommot-Yakutsk railroad. But there are only a little over 7 years left to put it into operation by 1995, and only 40 km of rails have been laid. The main obstacle is that they haven't yet acknowledged the engineering plan which was approved last year or agreed on a contract price. The project is in a constant dither over financing, which is sometimes cut off and sometimes available. And this year USSR Sovmin made an exception and authorized it, but only for the first quarter. And there are dozens of collectives working on this project, as well as over 5,000 construction workers. Working like this with self-support and self-financing is inconceivable.

There are also a number of unresolved technical problems associated with this new construction progress. We, bearing the bitter experience of the Little BAM on our

shoulders, negotiated with the MPS and the Mosgiptrans Institute to stipulate gravel road beds in the AYAM [Amur-Yakutsk Mainline] project plan instead of a sand-gravel mixture and R-65 instead of R-50 rails. What's more, we had already begun laying these rails when suddenly they recommended that we return to using the old type rails. We'll save a few kopecks, and tomorrow we'll lose thousands of rubles.

The Amur-Yakutsk Mainline doesn't exist yet, and the Lena River is the only transport artery serving the northern areas. The Port of Osetrovo is being smothered. Thousands of railroad cars stand idle every year. The national economy is suffering tremendous losses. Our main administration has been given the job of building the fourth phase of the port and the port employees' housing.

We understand that Yakutiya needs a more dependable railroad. And the sooner, the better for the entire country. By the way, according to TEO [feasibility study] calculations, the Berkakit-Tommot-Yakutsk railroad will pay for itself in a total of three years. We can and must build this line at accelerated rates, which requires that solutions be found to a number of problems which have cropped up.

Glavbamstroy subdivisions need to handle a great many construction and installation jobs on the projects called for in the integrated program to develop the productive forces of the Far East, the Buryat ASSR and the Chita Oblast. But here, too, there are a great many failures of coordination. Some of the projects' customers have not yet been clearly defined, nor has the technical documentation been worked up. For example, there are plans to construct several new north-south railroad lines. One of them, in the northern Irkutsk Oblast, is the Ust Kut-Kirensk-Nepa line. There are other proposals: it could be started not from Ust Kut, but from Ust Ilim, so as to take in the huge forest mass. This is a serious construction project. In order to avoid old mistakes, we need to prepare for it, as well as for the others, far in advance. It would be wonderful to start these projects without losing our present capacities and those of the collectives which have been tested on the difficult BAM kilometers.

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## Ministry Appointments and Transfers

### 30 January Announcement

18290084a Moscow GUDOK in Russian 9 Feb 88 p 2

[Unattributed article, under "Official Department" rubric: "Appointments and Transfers"]

[Text] The following appointments have been made by order of the Ministry of Railways:

**Vladimir Semenovitch Skaballanovich** is appointed to general director of the MPS All-Union Scientific Research and Drawing and Design Institute for Rail Transport Automation Equipment (VNIIZheldoravtomatizatsiya), and general director of the Soyuzzheldoravtomatizatsiya Scientific Production Association, and is relieved of his duties as first deputy chief of the MPS Main Signals and Communications Administration.

**Albert Petrovitch Kouarev** is appointed to first deputy chief of the MPS Main Subways Administration, and is relieved of his duties as deputy chief of this main administration.

**Ivan Ivanovich Lysenko**—to deputy railroad chief and chief traffic safety inspector for the Southeastern Railroad.

**Aleksandr Aleksandrovich Kvantaliani**—to chief of the Tbilisi Division of the Transcaucasian Railroad.

**Vasily Georgiyevich Davydov** is relieved of his duties as deputy chief of the MPS Main Technical Administration in connection with his retirement. Official thanks to him for his long years in transportation.

**Viktor Petrovitch Kharmach** is relieved of his duties as deputy chief of the Volga Railroad at his own request, for health-related reasons.

The following appointments have been made in accordance with orders from the USSR Ministry of Transport Construction:

**Mikhail Grigoryevich Podzorov**—to deputy chief of the Main Planning and Production Administration;

**Nikolay Fedorovich Abramov**—to deputy chief of GlavURS [Main Workers' Supply Administration];

**Nikolay Ivanovich Kompaniyets**—to Sverdlovsktransstroy [Sverdlovsk Transport Construction] Trust manager;

**Leonid Yefimovich Kuznetsov**—to Tyndatransstroy [Tynda Transport Construction] Trust manager;

**Viktor Vasilyevich Korolev**—to Uralstroyemkhanizatsiya [Urals Trust for Mechanized Construction] manager;

**Boris Vasilyevich Nechayev**—to Transsignalstroy manager.

#### 9 February Report

18290084b Moscow GUDOK in Russian 9 Feb 88 p 2

[Unattributed article, under "Official Department" rubric: "Appointments and Transfers"]

[Text] The following appointments have been made by order of the Ministry of Railways:

**Viktor Aleksandrovich Kalke** is appointed to first deputy chief and chief engineer of the MPS Main Locomotives Administration, and is relieved of his duties as chief of the Diesel Locomotive Administration and deputy chief of this main administration.

**Vladimir Mikhaylovich Korobov** is appointed to first deputy chief of the MPS Main Design and Capital Construction Administration, and is relieved of his duties as deputy chief of the Krasnoyarsk Railroad.

**Pavel Ilyich Kelperis** is appointed to first deputy chief of the MPS Main Scientific Research Administration, and is relieved of his duties as chief of the Main Locomotives Administration at his own request, for health-related reasons.

**Aleksandr Danilovich Klyashchitskiy** has been relieved of his duties as chief of the leading workers department and deputy chief of the MPS Main Personnel Administration in connection with his transfer to other work.

**Sergey Ivanovich Minin** has been relieved of his duties as first deputy chief and chief engineer of the MPS Main Locomotives Administration in connection with his transfer to other work.

**Karlo Akakiyevich Makatsariya** has been relieved of his duties and first deputy chief of the MPS Main Subways Administration in connection with his retirement.

**Vladimir Nikolayevich Dushkov** has been relieved of his duties as chief of the Contract Work Administration and first deputy chief of the MPS Main Capital Construction Administration in connection with his retirement.

**Vladimir Nikolayevich Pashchenko** has been relieved of his duties as chief of the Track-Repair Machine Plants, Spare Parts Production, Switch Output and Machine-Building Administration and deputy chief of the MPS Main Rolling Stock Repair and Spare Parts Production Administration in connection with his retirement.

**Semen Aleksandrovich Guretskiy** has been relieved of his duties as chief of the Main Material and Technical Supply Administration and as his duties as deputy chief of the MPS Main Rolling Stock and Spare Parts Production Administration, in connection with his retirement.

**Ivan Grigoryevich Semenov** has been relieved of his duties as chief engineer and deputy chief of the Baykal-Amur Railroad due to his retirement.

**Ripkhatulla Mukhamadiyev** has been relieved of his duties as chief of the Tselina Railroad's Kokchetav Division due to his retirement.

We would like to express our appreciation to those comrades who are retiring, for their many years of service in transportation.



**New 2TE-126 Locomotive**

18290084c Yerevan KOMMUNIST in Russian 6 Jan 88  
p 1

[Unattributed article: "New Diesel Locomotive"]

[Text] Voroshilovgrad—A whistle blast shattered the silence over Lugan today. Industrial trials of the Voroshilovgradteplovoy Production Association's new machine—the 2TE-126 main-line locomotive—were over. This series of diesel locomotives will replace obsolete units and will operate in all the country's climatic zones.

The steel Hercules looks impressive. A single section of the locomotive tractor is 24 m long. And it sits on 10 wheelsets instead of the usual six. This lightens the load on the rails, as this diesel locomotive weighs 230 tons. Microprocessors control the operation of the new 3,000-hp diesel.

12659

**Frunze-Kaında Line Opens**

18290084d Frunze SOVETSKAYA KIRGIZIYA in  
Russian 19 Dec 87 p 2

[Article by A. Bozhko, SOVETSKAYA KIRGIZIYA  
correspondent: "Issyk-Kul Has Come Closer"]

[Text] Kaında— Residents of the republic expressed a great deal of gratitude to the Alma-Ata Railroad's Frunze Division for opening the new Frunze-Kaında route this year. But they also asked that train traffic be extended to Tokmak and Rybachyev. These wishes were taken into consideration.

The opening of new routes has lightened the bus traffic load and gives residents of the Chuysk Basin more opportunities to spend their leisure time in Issyk-Kul.

12659

**New Bridge Over Ob River**

18290084e Moscow GUDOK in Russian 31 Dec 87 p 1

[Unattributed TASS article: "Over the New Bridge"]

[Text] Barnaul—(TASS)—Railroad train units began regular traffic over the new Ob River bridge today. The bridge is almost one km long.

The bridge, which connects the large Barnaul and Altay stations with additional lines, has taken some of the traffic burden off the intensely busy West Siberia Railroad section. Construction workers will begin erecting a motor-vehicle and pedestrian bridge next year.

12659

**Novosibirsk Metro Line Opens**

18290084f Moscow GUDOK in Russian 21 Jan 88 p 3

[Article by V. Manenkov: "Two More Stations"]

[Text] Novosibirsk—The first line of Novosibirsk's second metro line has been put into operation.

There are two stations on the line: the Ploshchad Garina-Mikheylovskiy and the Sibirskaya. The wall of the latter station is decorated with a unique colorful panel. The theme of the wall panel is in keeping with the subway station's name: wide-open Siberian spaces stretching out before a rider on a fiery steed.

12659

**Moscow Metro Accidents Reported**

18290084g Moscow GUDOK in Russian 26 Dec 87 p 1

[Unattributed article: "Incident and Accidents in the Subway"]

[Text] The Muscovites and visitors to the capital who got in touch with the Gudok editorial staff on 25 December were interested in finding out what had happened that morning on the Gorkovsko-Zamoskvoretskaya Subway Line.

Our correspondent V. Baryshev spoke on the telephone to the metro dispatcher service and found out that at approximately 9:00 am an 8-car subway train was unable to leave from the Belorusskaya Station platform toward the city center because all its brakes were activated simultaneously. It took 25 minutes to correct the malfunction, after which train traffic was restored.

The same day at approximately 1:00 pm, there occurred the spontaneous combustion of a high-tension cable in the tunnel between the Arbatskaya and Smolenskaya subway stations. The fire interrupted train traffic for about one-half hour.

Two incidents in one day! Capital residents have been asking Gudok if there have ever been so many delays and breakdowns in train traffic in the Moscow metro. This is the perfectly justifiable question we are asking of the MPS Main Subways Administration's directors.

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**Tula Wreck Due to Wheel Plate Failure**  
18290084h Moscow IZVESTIYA in Russian 6 Jan 88  
p 6

[Article by A. Pushkar, IZVESTIYA correspondent, under the "Accidents" rubric: "Train Wreck Near Tula"]

[Text] Kaznacheyevka Station—At the Moscow Railroad's Kaznacheyevka Station, where a train rushes past every few minutes, a ChP [state of emergency] occurred at 4:30 am, on New Year's morning. Station Inspector Lyudmila Gusekova, who had allowed two opposing trains to proceed, suddenly saw that a red control panel light had come on and a bell had begun ringing. In railroaders' language, this meant that a switch had lost control....

Lyudmila had recently graduated from the railroad technical school, and this was the first train wreck she had witnessed. Remaining calm, she immediately got in touch with the locomotive engineers and informed A. Vorobyev, Tula Division traffic controller for the Moscow Railroad. Firetrucks from the Azot Association in Shchekino, near the site of the wreck, were summoned immediately.

This is what happened. As Chief Engineer of the railroad's Tula Division N. Maltsev recounted, a wheel plate (manufactured at the Nizhnedneprovsk Pipe-Rolling Plant in February 1970) broke up. The cars at the rear of the train jumped the rails and collided with the cars of an oncoming freight train unit, and piled up. A fire broke out....

A breakdown train and other railroaders' subdivisions soon arrived at the scene of the wreck, and troops from the Tula Garrison were summoned to help as well. Traffic on this section was shut down for 12 hours. The fast Yug-Moscow trains were brought to a standstill for 12 hours, and some of the passenger train units were detoured through the Uzlovaya and Kaluga stations.

The coupled cars (14 had left the tracks) had to be pulled off by tractors. Truck-mounted cranes were used to lift the heavy cargoes from the freight cars.

Repair workers, track layers and power engineers are now finishing the job of eliminating all traces of the trainwreck. There were no fatalities and no one was injured. Experts have determined the causes of the breakdown. It must also be determined whether load limits were exceeded for a wheelset which had been in service for 18 years.

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**Urusha-Yerofey Pavlovich Line Electrified**  
18290084i Moscow GUDOK in Russian 12 Jan 88 p 1

[Unattributed TASS article: "A Confident Step for the Electrification Workers"]

[Text] Engineers on the first electric locomotives used their train whistles to greet one of the oldest stations on the Transbaykal Railroad, one which was given the name and patronymic of the well-known Russian agriculturist Yerofey Pavlovich Khabarov. Now there is regular electric traction train service from this station to Urusha.

Electrification of the entire Transbaykal Railroad has entered the final stage. Putting the next-in-line Urusha-Yerofey Pavlovich section into operation brings the extent of electrified lines to 1,120 km.

In addition, sections of eight more railroads have been converted to electric traction. They include the Northern, Tselina, Odessa, North Caucasus, October and others. Subdivisions of the Ministry of Transport Construction's Glavtranelektromontazh Administration worked as hard as possible on these sections.

An important feature of these efforts is that preference was given to direct current systems, which are more economical.

Thus, the electrification plan for two years of the five-year plan period has been fulfilled: 3,335 of the 8,000 km called for in the five-year plan were put into operation. Difficult tasks lie ahead. Solving them depends in large part on coordinating the work of MPS subdivisions and enterprises and Mintransstroy [Ministry of Transport Construction].

12659

**VL85 Locomotive Tested on Western BAM**  
18290084j Moscow GUDOK in Russian 4 Feb 88 p 1

[Article by A. Sotnikov, TASS correspondent: "First Run"]

[Text] Ulan-Udz, 3 Feb—The VL85, the country's most powerful locomotive, has successfully finished its first freight-hauling run on the western section of the Baykal-Amur Railroad. This is the conclusion arrived at by those who took part in testing this machine. Having negotiated this train over 300 km, engineers V. Mineyev and I. Draganchuk brought the 77-car consist into the Lena Station from Severobaykalsk.

"The locomotive, which is much more powerful than previous models, demonstrated its potentialities on this extremely complex section by overcoming steep up- and downgrades with a heavyweight consist", said V. Mineyev. "I think that despite the complicated BAM route configuration, this locomotive can pull consists weighing

over 4,000 t. The Severobaykalsk Depot is presently making a locomotive just like this one ready for regular runs and is forming train engineer crews to operate these "strong men".

12659

**TEM-15 Locomotive in Acceptance Testing**  
*18290084k Moscow PRAVDA in Russian 9 Jan 88 p 1*

[Article by PRAVDA stringer M. Atamanenko: "The 'Velvet' Track"]

[Text] Bryansk, 8 Jan—The new TEM-15 diesel locomotive, manufactured by the Bryansk Machine-Building

Plant Association, has passed its acceptance tests. Series production of these diesel locomotives will begin this year.

The primary difference of the new model from its predecessors is that it uses less fuel. Its fuel consumption rate has been reduced by 10 percent. This was achieved by developing a more economical engine and by improving the combustion process. This promises considerable savings.

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31 May 88